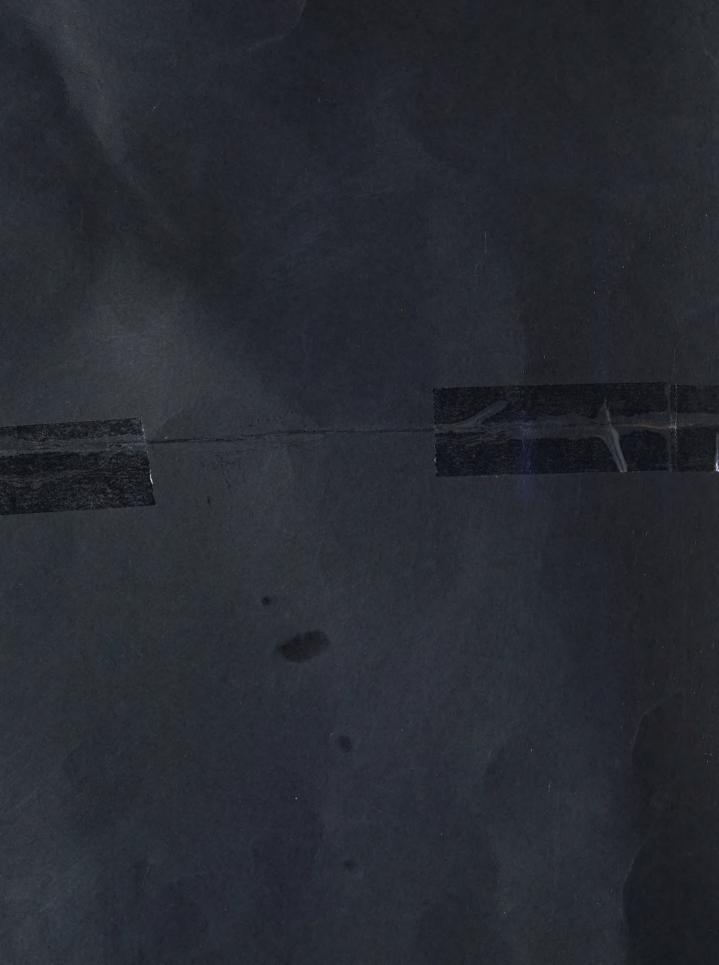


MANUAL OF ENVIRONMENTAL POLICIES AND GUIDELINES



Ministry
of the
Environment



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POLICY TITLE EMERGENCY TAKEOVER OF FACILITIES

NO 10-01-01

Legislative Authority

the Environmental Protection Act the Ontario Water Resources Act the Pesticides Act

Statement of Principles

This policy addresses the problem of the inadequate operation of a waste disposal, waste treatment, or other facility by its owner. Normal procedure is for the Ministry to issue an Order directing that necessary work or operation be carried out. When an Owner is unable to carry out the Order, the Ministry must prepare for emergency takeover of the facility.

- 1. Ministry Abatement
 Policy for Emergency
 Operation
 - 1.1 Scope of Abatement

This policy relates to waste disposal sites, waste management systems, sewage systems, sewage works, water works, and other potential sources whose inadequate operation may lead to environmental or health hazards.

November 12, 1986

Point of Contact

Operations Co-ordinator, Operations Division

Effective Date

April 18, 1980

MOE 1 4:00

1.2 Notification of Ministry

The provisions of the Environmental Protection Act, the Ontario Water Resources Act and the Pesticides Act require any person or company who allows the deposition of any contaminant in excess of approved standards to notify the Ministry of the Environment. This should ensure the Ministry's early knowledge of the existence of the problem.

1.3 Repair of Injury

Section 17 of the EPA provides that where any person causes or permits the addition of a contaminant to the natural environment, the Minister may order that person to repair the injury or damage so caused. Other sections give similar powers to the Minister or a Director. In case of default, the Minister under Section 143 may order that the first order be carried out at the expense of that person and may sue for any expenses.

1.4 Powers of Minister

The Ontario Water Resources Act and the Pesticides Act provide similar powers to the Minister.

2. Abatement Program Development Process

2.1 Conditions Leading to Emergency Takeover

Where it is apparent that a company or a person is not satisfactorily operating a waste disposal site, treatment facility of any other potential source whose inadequate operation may lead to environmental or health hazards and indicates no intention to do so, the Ministry must immediately prepare itself to take over the operation of such a facility.

2.2 Preparation by Ministry

As time is of the essence, the steps indicated below should be taken promptly.

2.2.1 Project Manager

The Regional Director should immediately appoint a Project Manager and a project management schedule should be drawn up for a possible takeover of operations.

2.2.2
Request for
Municipal Operation
of Facility

In the case of privately owned sewage and water works, the Regional Director, as a first step, should request the Municipality to take over the operation of the facility. Section 33, OWRA, provides the legal basis for this step. "Privately owned", as used here, does not include non-communal works referred to under Part VII, Section 62 of the EPA.

2.3 Ministry Orders

For other works, or where 2.2.2 above does not succeed, the abatement process will consist of the following steps:

- (a) The Ministry will prepare and issue an order requiring the company, municipality or person to operate the facility.
- (b) Any appeals emanating from the order will be dealt with. In case of urgency, a Stop Order, or Minister's Order, which comes into effect immediately (Sections 7, 16 of the EPA) should be used. A Minister's Order, referred to in 2.4 following, is not effective until the Order on which it is based becomes enforceable.
- (c) The order will normally be registered on title against the property in question.

2.4 Inaction by Owner

If, at this, or any earlier stage of the process, it becomes apparent or likely that the owner is unable or unwilling to operate the facility, or to carry out required remedial measures, or the owner cannot be located, and any of these cause, or are likely to cause an environmental or health hazard, then the following steps will be immediately taken:

2.4.1 Minister's Order Sought

A Minister's order under Section 143 of the Environmental Protection Act, or Section 55 of the Ontario Water Resources Act or Section 32 of the Pesticides Act will be sought. This will enable the work to be done at the expense of the parties which were originally directed to do it, allowing the Crown to recover the cost of doing it by action in court as a debt due to the Crown.

The following work will have to be carried out for the Minister's order:

- (a) The Director will decide if and when the facility should be operated by the Ministry or contracted to an outside agency or person.
- (b) The Project Manager will prepare a detailed, itemized, estimate of the costs involved with operating, upgrading, and carrying out remedial measures as required.
- (c) The Project Manager will determine the terms of reference for the operation of the facility, upgrading, and remedial measures as required.
 - (d) The Project Manager will consult with the Policy and Planning Branch on the necessary funding requirements.

2.4.2 Assets Approved

The real property assets and other assets of the company or person within Ontario, should be appraised through the Realty Services Branch of MGS or through the Property Branch of MOT. Such appraisal should address the current market values and the present and potential value to the Province or other public authority of the land in question.

2.4.3 Finances Reviewed

The financial situation of the company or person should be reviewed by the Management Audit Branch. This is to be arranged through the Corporate Resources Division.

2.4.4 Order on Title The Minister's Order is to be registered on title if applicable.

2.4.5 Environmental Assessment Act An exemption or approval will be sought respecting the Environmental Assessment Act if needed.

2.4.6 Legal Action The Director or Project Manager, in conjunction with the Legal Services Branch, will have legal action carried out by the Crown Law Office of the Ministry of the Attorney General for recovery of the funds spent. The surrender of ownership of the land to the Crown should be taken into account.

2.4.7 Recordkeeping of Costs Where monies or staff time are being expended, the Legal Services Branch should be consulted in advance to ensure appropriate records are kept for the purpose of evidence in case a law suit is required in order to recover costs.

2.4.8 Writ of Execution

Following judgement usual legal proceedings for collecting debts will be followed, including issuing and filing Writs of Execution and instructing sheriffs to carry them out.

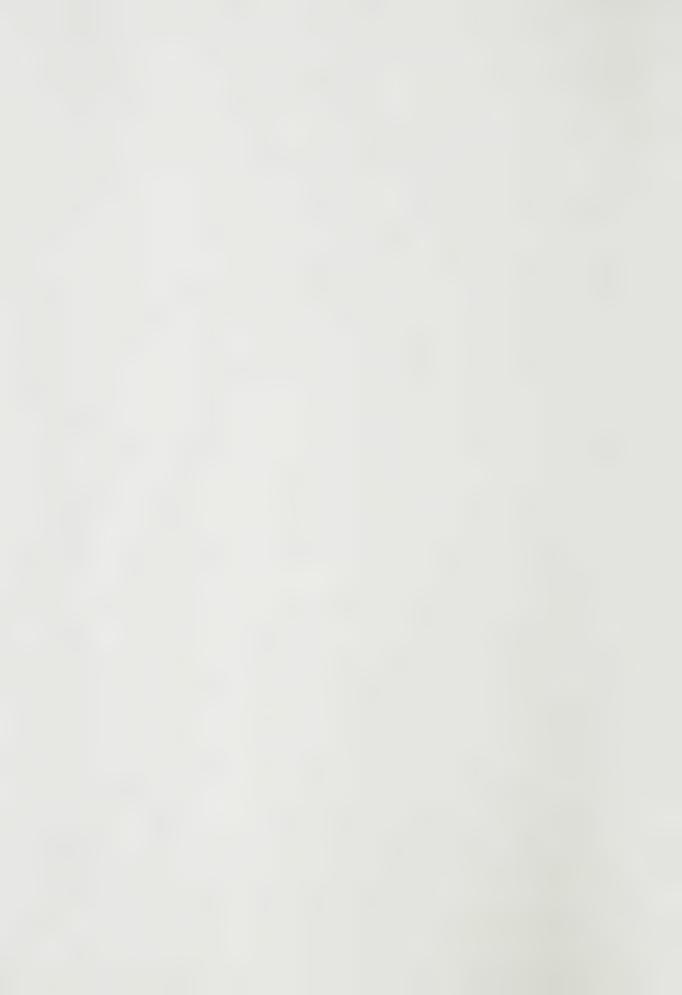
2.4.9 EPA Part IX Part IX of the <u>Environmental Protection Act</u> provides an additional vehicle for handling some of the situations covered by this policy.













POLICY TITLE USE OF PESTICIDES IN AND AROUND WATER WORKS

NO 11-01-01

Legislative Authority

the Pesticides Act

Statement of Principles

This policy establishes the practice of prohibiting or controlling the use and storage of pesticides in and around all water works. This requirement is necessary to ensure that potable water supplies are protected from contamination by pesticides.

This policy applies to those water works that require approval pursuant to Section 23 of the Ontario Water Resources Act, R.S.O. 1930, c. 361.

This policy is written in support of the <u>Pesticides Act</u>, Section 4, which restricts the discharge of a <u>pesticide</u> into the <u>environment</u>, such that human health is not adversely affected or likely to be adversely affected.

The policy further supports Policy 15-06 (Drinking Water Quality: Ontario Drinking Water Objectives) of the Manual of Environmental Policies and Guidelines which states that water for domestic use should be safe, palatable and aesthetically pleasing, and free from any disease-causing organisms or hazardous concentrations of chemicals or radioactive substances.

This policy does not apply to materials used in the treatment of water to achieve and maintain potability.

Point of Contact

Director, Hazardous Contaminants Branch

Effective Date

November 18, 1987

Definitions:

Water Works

Water works means any works for the collection, production, treatment, storage, supply and distribution of water, or any part of any such works, and any installation, building or lands associated with a water works, but does not include plumbing or other works to which regulations made under Clause 44(2)(a) Ontario Water Resources Act, apply.

Pesticide

Any organism, substance or device used for controlling pests, including herbicides for use in the control of weeds, fungicides for the control of fungal organisms, insecticides for use in controlling lawn and garden insects and/or structural pests associated with the interior or exterior of water works facilities, and rodenticides for the control of rats or mice.

Acceptable Use of a Rodenticide

The use of a block formulation rodenticide bait housed in a secure bait station to prevent bait translocation by rodent pests, or bait tampering by humans.

1.0 Policy Objective

The objective of this policy is to ensure that potable water remains free from contamination by pesticides both during and after the treatment process.

2.0 Requirements

2.1 General

The application of pesticides is to be prohibited around, over or in the immediate vicinity of water works. Of prime importance are those facilities where reservoirs are open to the air and are located out-of-doors, covered in-ground reservoirs, reservoirs located within structures and used for storage, flocculation or clarification processes, or any part of the facility where there are open water areas, or sites with water wells or springs located on the premises.

2.2 Storage

The storage of pesticides is to be prohibited within or on the premises of water works.

2.3 Tank Filling

The filling of private mixing tanks for pesticide application by personnel not employed by the water treatment facility is prohibited on the premises of water works. The filling of such tanks from off-premises hydrants shall not be done without the use of a back-flow device or anti-suction device between the water hydrant and the mixing tank.

3.0 Exemptions

3.1 Rodent Control

Exempt from this policy is the acceptable use of rodenticides for rat and mouse control within and around water works by a licensed structural exterminator, under the supervision of the water works operator.

3.2 Public Health

Exempt from this policy are the use of pest control products applied in the interest of public health under the Health Protection and Promotion Act to control disease-causing pests, or the control of noxious weeds by an order issued under the Weed Control Act or the use of chemical (micro-biological) agents for the control of microbes and bacteria. The application of all pest control products is to be carried out by a suitably licensed applicator.

3.3 Mechanical Devices

Exempt from this policy is the use of mechanical devices or apparatus which do not utilize any chemical agent.

3.4 Exempted Premises

Exempt from this policy is the use of pesticides on land or premises where there is no possibility of water contamination, such as elevated tanks, or premises where water is continuously under pressure and is enclosed in a pipe.

3.5 Notification

Where a water treatment facility is exempt from this policy, the plant operator will advise the Regional Director in writing prior to the commencement of an extermination.

4.0 Storage Facilities

If pesticides are used under the exemptions outlined in Section 3.0, then the storage facility shall conform to Regulation 751, Section 98 and 99 under the <u>Pesticides Act</u>.











POLICY TITLE USE OF FARM POLLUTION ADVISORY COMMITTEE

NO 12-01-01

Legislative Authority

the Environmental Protection Act

Statement of Principles

This policy describes the use of the Farm Pollution Advisory Committee in investigating livestock-related pollution problems and assisting Regional staff in obtaining appropriate abatement through application of good farming practices. The procedures described in this policy are intended to be applied in livestock-related pollution problems as substitutes for procedures described in Sections 1.3-1.5 of Policy 05-02 Pollution Abatement Program: Development, Compliance and Enforcement.

1. Objectives

The purpose of this policy is to provide guidance to Ministry staff on how to obtain and use the services of the Farm Pollution Advisory Committee.

2. Abatement Procedure For Livestock Related Pollution Problems

Normally Regional staff attempt to resolve pollution problems through discussion with the farmer concerned, and obtain the advice and assistance in this from representatives of the Ministry of Agriculture and Food.

November 12, 1986

Point of Contact

Director, Approvals Branch

Effective Date

October 21, 1981

3. Use of Committee

When Regional staff have been unable to reach agreement with the farmer on a voluntary basis the Committee's advice should be sought with the concurrence of the Ministry of Agriculture and Food.

3.1 Mandatory Use

The advice of the Committee shall be obtained prior to issuing a Control Order to a farmer, or laying a charge against a farmer relating to pollution arising from livestock operations.

3.2 Exception

Whenever the Regional Director has reasonable and probable grounds for believing that obtaining the Committee's advice would unduly delay urgently needed corrective action, or would not contribute to a resolution, the Regional Director may refrain from seeking the Committee's advice.

3.3 <u>Discretionary</u>

None of the foregoing should prevent Regional staff from obtaining the Committee's advice whenever it might contribute to the resolution of a livestock related pollution problem.

4. Procedure

Regional staff will contact the chairman to activate the Committee's investigation when the Committee's advice is required.

5. Committee Report

The Committee shall forward its report on its investigation to the Minister of the Environment, and the Minister of Agriculture and Food. Copies shall be provided through the Ministry of the Environment for Regional Staff of both Ministries and for the farmer concerned.

6. Abatement Action

The Regional Director shall decide on appropriate abatement action after reviewing the report.



POLICY TITLE CONSTRUCTION PRIOR TO MINISTRY APPROVAL

NO 12-02-01

Legislative Authority

Sections 23 and 24, the Ontario Water Resources Act. R.S.O. 1980

Statement of Principles

Sewage or water works constructed without approval contravene Sections 23 or 24 of the Ontario Water Resources Act which state that

"... no such works shall be undertaken or proceeded with and no by-laws for raising money to finance such works shall be passed until the proposed works have been approved by the Director."

This policy emphasizes the seriousness with which the Ministry views the practice of constructing works without the party obtaining approval as required under the Ontario Water Resources Act, and establishes administrative procedures for ensuring that the technical requirements of the Ontario Water Resources Act are met in cases where construction of water or sewage works takes place prior to the issuing of Certificates of Approval.

This policy does not apply to any works constructed prior to the passage of the OWR Act.

Point of Contact

Director, Approvals Branch

Effective Date

July 14, 1987

Definition:

Minor Works

Those facilities designed to provide potable water for, or treat domestic sanitary sewage from, the equivalent of 500 persons or less.

1. <u>Investigation and</u> Prosecution

When it has been discovered that works have been built or are being built without approval, the Regional Director shall initiate an investigation and inform the party that no further construction can take place until the party has obtained the required Certificate of Approval, and if considered appropriate, initiate prosecution procedures.

Section 54 of the $\underline{\mathsf{OWR}}$ Act imposes a two year limitation period on prosecutions. If the period has expired only those matters dealt with in Section 2 below can be addressed by the Ministry.

2. Technical Examination

Concurrent with the action being taken in accordance with Section 1 above, the Regional Director shall request the party to submit detailed plans of the entire works including "as constructed" drawings certified by a professional engineer, for works already completed, except as set out in Section 2.1 below.

2.1 <u>Minor Water and</u> Sewage Works

For minor water and sewage works, the proponent will provide the necessary drawings and report to the satisfaction of the Regional Director to explain the facilities that were currently constructed without approval and for which approval was necessary. The extent of detail to be provided should be commensurate with the complexity of the work installed without approval.

2.2 Ministry Letter

The Regional Director will review this information in consultation with the Director, Approvals Branch, and may issue a letter indicating the extent to which the works meet MOE standards and requirements.

2.3 Works Upgrading

If the works are not deemed to be satisfactory, the Regional Director shall send a letter to the party requesting changes as required to bring the facilities up to Ministry's requirements. If the party undertakes the requested changes to the satisfaction of the Director, the Director may proceed to issue the letter mentioned in Section 2.2 above.

Where these changes are modifications which would be subject to Sections 23 or 24 of the Ontario Water Resources Act, it will be necessary for the party to make application for approval for these changes.

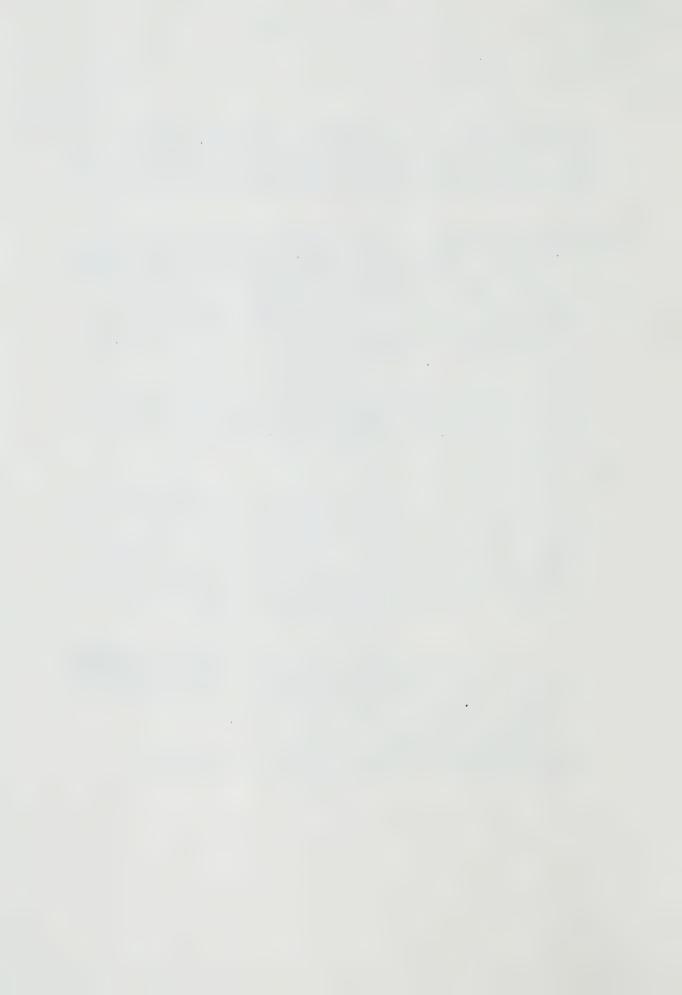
2.4 Director's Order

If the party refuses to submit information on the constructed works as required in Section 2 and, Section 2.1 or, if he refuses to make the requested changes as in Section 2.3, the Director of the Approvals Branch in consultation with the Regional Director, shall issue an order requiring the information or the changes to the works pursuant to Subsection 23(3) or 24(3) of the Ontario Water Resources Act.

Where these ordered changes are modifications subject to Sections 23 or 24 of the $\underline{Ontario}$ Water Resources Act, a provision of \overline{the} order will require an application for approval to be submitted by the party.

2.5 Established Works

Similar provisions that apply to longestablished works are contained in Policy 12-03.





POLICY TITLE

APPROVAL OF EXPANSION TO PREVIOUSLY CONSTRUCTED AND UNAPPROVED FACILITIES

NO

12-03-01

Legislative Authority

Sections 23 and 24 the Ontario Water Resources Act R.S.O. 1980

Statement of Principles

Definition

Minor Works

Those facilities designed to provide potable water for, or treat domestic sanitary sewage from, the equivalent of 500 person or less.

Many water and sewage works which would require approval under Sections 23 and 24 of the <u>OWR Act</u> have been installed prior to the passage of the Ontario Water Resources Act or unknowingly without Ministry approval. Many of these facilities have been operating effectively without creating any health hazard (water supply systems) or environmental problems (sewage works).

Occasionally, expansions to these unapproved works are proposed for which approval is requested. Hence, it becomes necessary to approve additions or expansion to works for which no previous MOE approval had been given. Since these additions can become physical extensions of the existing facilities, it becomes necessary to ascertain the state of the existing works to ensure that the new works are not jeopardized by previously unapproved and unacceptable facilities and that the old works are capable of accommodating expansion so the the entire completed system consisting of the old and new works can be properly operated.

August 22, 1986

Point of Contact

Director, Approvals Branch

Effective Date

December 24, 1985

This policy emphasizes the need of obtaining information on the nature of the existing works before an extension can be considered, but recognizes the fact that the existing works, although unapproved, may have operated effectively without creating adverse health or environmental problems.

1. Application For Approval

When an application is received for the approval of additions or extensions to an older existing facility constructed without Ministry approval, the Director of the Approvals Branch shall request the applicant to provide information on the state of the existing works to ensure that the new facilities will not be jeopardized by the existing works and that the combination of the old and new facilities will be capable of operating in an environmentally acceptable manner and without creating any health problems.

2. Information Required

The amount of information to be provided by the applicant will be commensurate with the size and complexity of the existing works and the intended extension.

2.1 Minor Systems

For minor systems it may be sufficient to carry out an inspection by Ministry Regional staff to determine whether the existing works are suitable for extension.

2.2 Major Municipal Works

For major municipal works it will generally be necessary to obtain "as constructed" drawings certified by a professional engineer.

3. Works Upgrading

Prior to issuing approval for the extension, it may be necessary to upgrade the existing works where health and safety or the environment are at risk.

4. Advice On Past Operation

Before requesting any upgrading of the existing works, the Regional Director will inform the Director of the Approvals Branch whether it is known if the existing works have been operated acceptably in the past and if problems have been encountered that require consideration prior to any approval for extension being given.

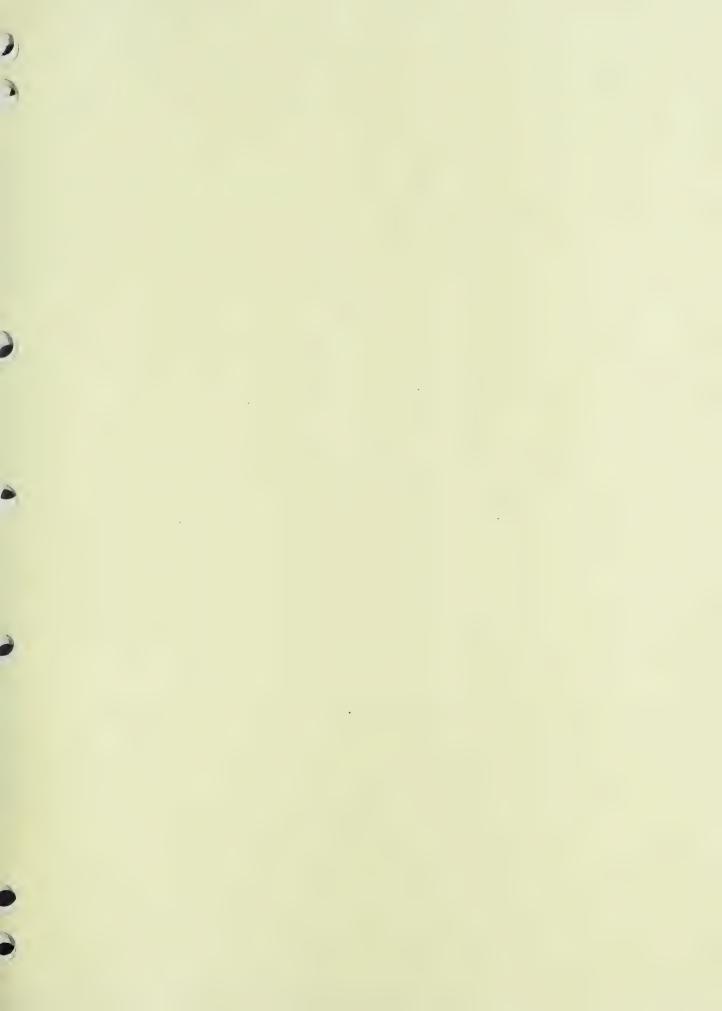
5. Certificate of Approval

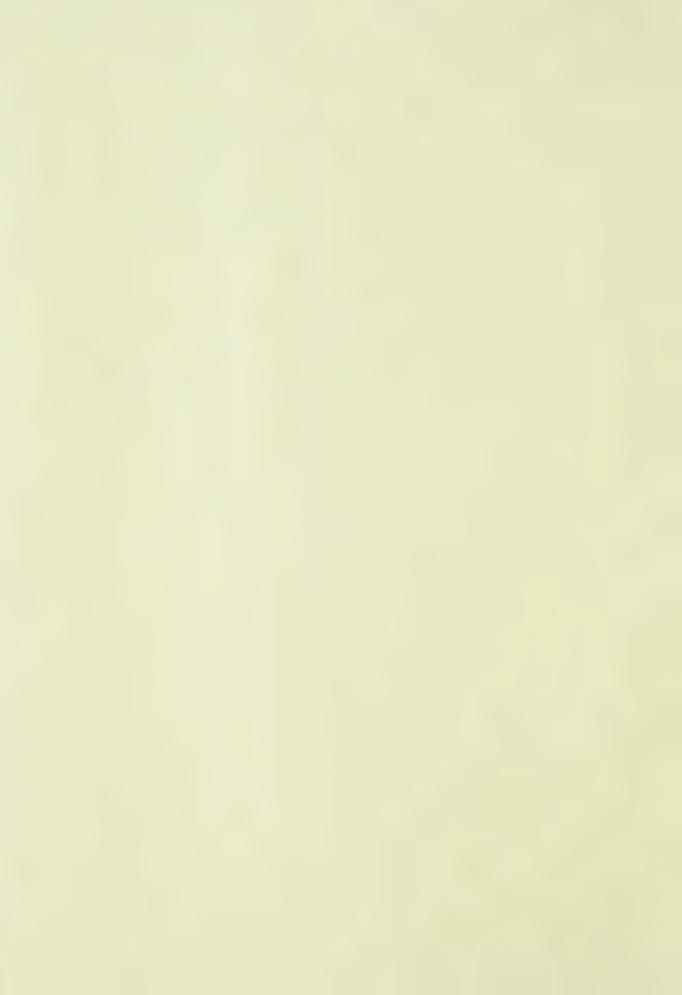
The Director of the Approvals Branch shall issue a Certificate of Approval for the extension only if the new proposed work can meet Ministry guidelines and both the Regional Director and the Director of Approvals are satisfied that the existing works are amenable to expansion and that the combination of the old and new works will not represent a risk to health or the environment.

6. Construction Prior To Ministry Approval

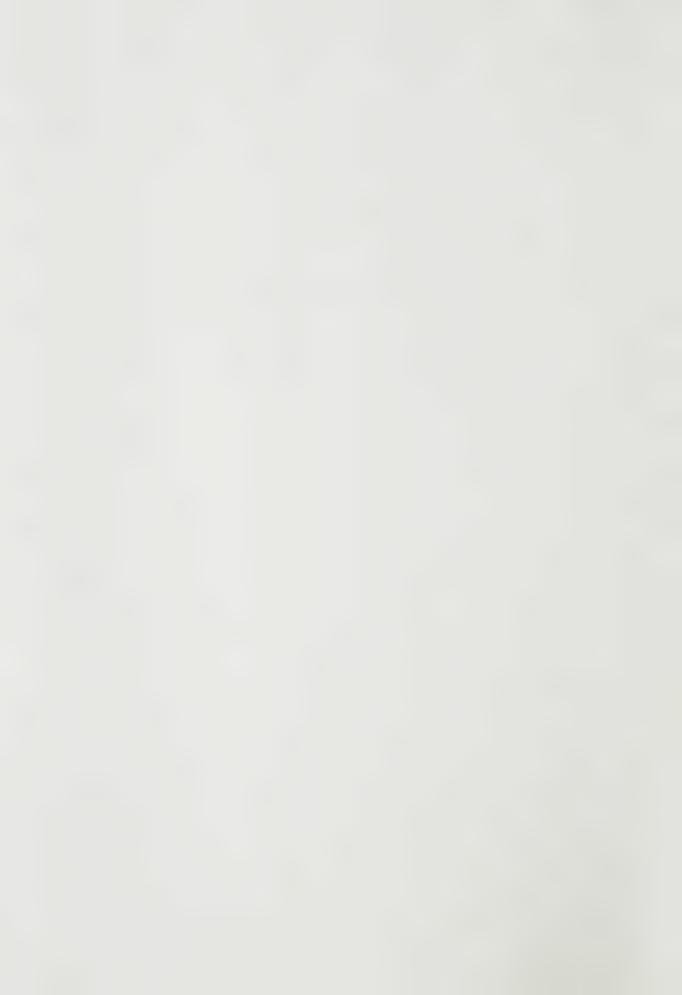
Similar provisions that apply to works constructed when the $\frac{OWR}{2-02}$ was in force are contained in Policy 12-02.













POLICY TITLE

ROLE OF THE MINISTRY IN EMERGENCIES AND SPILLS

NO 13-01-01

Legislative Authority

the Environmental Protection Act the Ontario Water Resources Act

the Pesticides Act

the Emergency Plans Act

the Health Protection and Promotion Act

Statement of Principles

This policy describes the role of the Ministry in protecting life, property, and the environment during emergencies and spills. Ministry plans and actions for dealing with environmental concerns during emergencies and spills are intended to be subordinate to those plans and actions for the protection of life and property.

Definitions

Emergency

A situation caused by the forces of nature, an accident, an intentional act or otherwise that constitutes a danger of major proportions to life or property.

Emergency Plan

A plan governing the provision of necessary services during an emergency and the procedures under and the manner in which, employees of a municipality or Crown employees and other persons will respond to the emergency.

August 22, 1986

Point of Contact

Director, Approvals Branch

Effective Date

December 24, 1985

Spill

A discharge into the natural environment from or out of a structure, vehicle or other container which is abnormal in quantity and quality, in light of all the circumstances of the discharge which causes or is likely to cause the following adverse effects as set out in S.80 of the Environmental Protection Act:

- (a) impairment of the quality of the natural environment for any use that can be made of it;
- (b) injury or damage to property or to plant or animal life;
- (c) harm or material discomfort to any person;
- (d) adverse effects on the health of any person;
- (e) impairment of the safety of any person;
- (f) the rendering of any property or plant or animal life unfit for use by man;
- (g) the loss of enjoyment of normal use of property; or
- (h) interference with the normal conduct of business.

Minor Spill

A spill of such magnitude that the spiller can, utilizing his own resources or resources available to him, undertake the necessary measures to control, contain and clean up the material spilled.

During a minor spill the Ministry of the Environment is responsible for fulfilling its regulatory responsibilities under its legislation and also acts as a resource agency to other parties.

Moderate Spill

A spill of such magnitude that the resources under a local or co-operative contingency plan are required to effectively contain and clean up the material spilled; During a moderate spill the Ministry of the Environment fulfills its regulatory responsibilities under its legislation and also acts as a resource agency to other parties.

Major Spill

A spill, regardless of its magnitude, for which for whatever reason, the Ministry of the Environment assumes direct responsibility.

During a major spill other agencies act in an advisory capacity to the Ministry of the Environment which coordinates clean-up efforts.

1. Emergencies

1.1 Role of the Ministry

The role of the Ministry is to assist the agency in control of an emergency involving a discharge or potential discharge to the environment by providing monitoring capability and advice, where needed, in accordance with the Ministry's expertise and resources.

1.2 Responsibilities

- (a) Responsibilities for taking control of an emergency are set out in the Emergency Plans act and Order In Council 1770/85.
- (b) The Ministry will support and advise other agencies in control of an emergency.

1.3 Scope of Ministry's Actions

For the spill component of the emergency, the Ministry will, in consultation with the agency in control of an emergency,

- (a) determine the nature and extent of environmental damage which may be caused by the emergency.
- (b) provide information requested by a Medical Officer of Health,

- (c) evaluate the adequacy of clean-up and disposal efforts,
- (d) recommend appropriate procedures to the agency in charge of the emergency where necessary,
- (e) enforce the duties imposed on any persons responsible; and
- (f) document all findings, actions and recommendations.
- 1.4 Province of Ontario
 Contingency Plan
 for Spills of Oil
 and Other Hazardous
 Materials

The Plan serves to meet the obligations of the Ministry under the Emergency Plans Act for the containment and clean-up of major spills to any land mass or body of water in Ontario. Other aspects are dealt with by municipal or other Provincial emergency plans.

2. Spills

2.1 Role of the Ministry

The role of the Ministry is to assess the environmental impact of spills and as a regulatory agency enforce the duties and provisions imposed by any applicable legislation administered by the Ministry.

2.2 Responsibilities

- (a) The Ministry will receive notification and information with respect to spills of pollutants to the natural environment and take measures to ensure notification of other agencies and warning of users or potentially affected parties.
- (b) The Ministry will take measures to inform the media and the public regarding major spills.
- (c) With respect to spill incidents, the Ministry will:
 - (i) ensure that the discharger takes appropriate measures to clean up,

- (ii) give advice and make recommendations as to the best practicable clean-up and disposal measures to be followed,
- (iii) make recommendations with respect to procedures or equipment for spill prevention, where applicable, and
 - (iv) where necessary and authorized by statute make orders with respect to clean-up.
- (d) The Ministry will support and advise other agencies in control of any emergency at the request of the agency in charge of the emergency which has or may have a spill component.

2.3 Scope of Ministry's Actions

The Ministry will:

- (a) determine the nature and extent of environmental damage caused by the spill,
- (b) provide information to Medical Officers of Health,
- (c) evaluate the adequacy of the containment, clean-up and disposal efforts,
- (d) recommend appropriate procedures where applicable,
- (e) enforce the duties imposed on the discharger and others, and
- (f) document all findings, actions and recommendations.

2.4 Spill Responsibilities

The following outlines the way in which various parties discharge their responsibilities for the three categories of spills.

2.4.1 Minor Spill

- (a) Spiller takes immediate measures to control, contain and clean-up spilled material;
- (b) Spiller notifies owner, person in control of pollutant, police and fire departments and other public agencies including municipality and the Ministry of the Environment;
- (c) Spiller obtains assistance of contractor who provides clean-up and disposal services or uses own clean-up forces;
- (d) Public agencies maintain surveillance where necessary and provide advice to spiller or his forces; and
- (e) Ministry of the Environment provides advice and enforces duties and responsibilities imposed by Ministry legislation.

2.4.2 Moderate Spill

- (a) Spiller takes immediate measures to control, contain and clean-up spilled material;
- (b) Spiller notifies owner, person in control of pollutant, police and fire departments and other public agencies including municipality and the Ministry of the Environment; spiller may notify industry cooperative agency;
- (c) Municipality or industry cooperative agency invoke appropriate contingency plan;
- (d) Contractor's services are obtained if needed;
- (e) Public agencies maintain surveillance where necessary and provide advice to agency in control; and
- (f) Ministry of the Environment provides advice and enforces duties and responsibilities imposed by Ministry legislation.

2.4.3 Major Spill

- (a) Spiller takes immediate measures to control, curtail and clean-up spilled material;
- (b) Spiller notifies owner, person in control of pollutant, police and fire departments and other public agencies including municipality and the Ministry of the Environment;
- (c) Ministry of the Environment, in consultation with other agencies, assumes responsibility for containment, clean-up, and disposal for major spill;
- (d) Ministry invokes Province of Ontario
 Contingency Plan for Spills of Oil and
 Other Hazardous Materials where
 desirable and obtains additional
 assistance from Provincial, State, and
 Federal authorities and private sector;
- (e) Public agencies maintain surveillance and provide advice and necessary services; and
- (f) Ministry of the Environment manages spill response and enforces duties and responsibilities imposed by Ministry legislation.

2.4.4 Further Details

Further details on spill responsibilities are available from the Ministry's publication Planning for Spill Contingencies (1985; Supplement to the Province of Ontario Contingency Plan for Spills of Oil and Other Hazardous Materials).

2.5 Province of Ontario
Contingency Plan
for Spills of Oil
and Other Hazardous
Materials

The Plan provides a framework for dealing with major spills to any land mass or body of water in Ontario. It provides a coordinated alerting procedure for spills, an evaluation and containment procedure and a clean-up response mechanism. The Plan is subordinate to plans which address health or property priorities.

2.5.1 Initiation of Plan

The plan may take effect when:

- (a) the responsible party defaults on his duties to respond and the spill threatens to become a major spill,
- (b) in cases where the source of a major or moderate spill cannot be readily established and a timely response is necessary, or
- (c) upon request for assistance with a moderate or minor spill.

2.5.2 Authority of Regional Director

A Regional Director of the Ministry of the Environment has the authority to invoke the plan.

2.6 Future Contingency Activities

Plans will be developed to guide Ministry staff in connection with the following areas of environmental concern:

- (a) The monitoring of contaminants released into the atmosphere (supporting municipal or other government emergency plans),
- (b) Major disruptions or threats to municipal water supply or sewage treatment systems,
- (c) Large scale crop damage or soil productivity impairment from accidental releases of contaminants to the atmosphere or from mis-application of pesticides.
- (d) Large scale crop damage, livestock losses or soil productivity impairment resulting from the irrigation with or consumption of contaminated water.
- (e) Applying uniform Provincial standards in connection with clean-up duties imposed under Part IX of the Environmental Protection Act.

3. Ministry Administration for Spills and Emergencies

3.1 Response Procedures

The Ministry of the Environment's Spills Action Centre receives spills reports on a 24-hour basis and environmental complaints from the public outside of normal Ministry working hours.

In addition, each Region provides a response system under which responsibility is assigned to Ministry personnel to deal with events. Upon receiving a call, the responsible officer contacts the original caller and other agencies to determine further details, assesses the nature of the problem, and directs the Ministry's response.

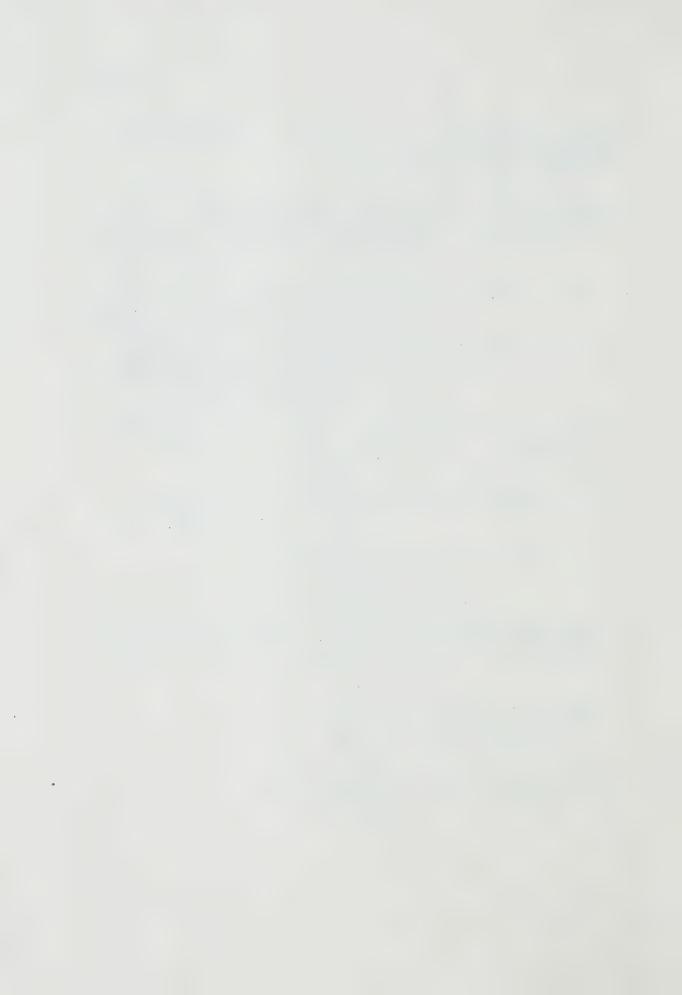
3.2 Contingency Planning

Activities include a wide variety:

- (a) inter-agency coordination;
- (b) identifying staff training needs;
- (c) municipal advisory services;
- (d) response planning; and
- (e) spills and emergencies audit.

3.3 Human Resources Branch

Branch responsibilities include developing programs to meet identified training needs.





POLICY TITLE SPILLS ACTION CENTRE OPERATING PROCEDURES

NO

13-02-01

Legislative Authority

the Environmental Protection Act, Part IX

Statement of Principles

This policy describes the operations of the Ministry of the Environment's Spills Action Centre (SAC). The full Spills Action Centre Operating Procedures is available from the Centre or from the Ministry's Operations Division Office at 135 St. Clair Avenue West, Toronto, Ontario, M4V 1P5.

1. Spills Action Centre Functions

The Ministry's Spills Action Centre (SAC), located at 7 Overlea Blvd., 5th Floor, Toronto, M4H 1A8, has the following functions:

- (a) it responds to notification of spills to the environment on a 24 hour per day, 365 day per year basis at its toll-free number (1-800-268-6060);
- (b) it responds to inquiries or complaints primarily outside of normal Ministry working hours (i.e., holidays, weekends and weekday nights).

Point of Contact

Executive Director,
Approvals and Engineering

Effective Date

March 10, 1986

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2. Assessment By SAC Environmental Officer

Environmental Officers on-duty receive information and assess it in accordance with the Operating Procedures.

3. Appropriate Response Action

Environmental Officers decide on the appropriate action as described in detail in the full Operating Procedures.

Such actions typically include the following:

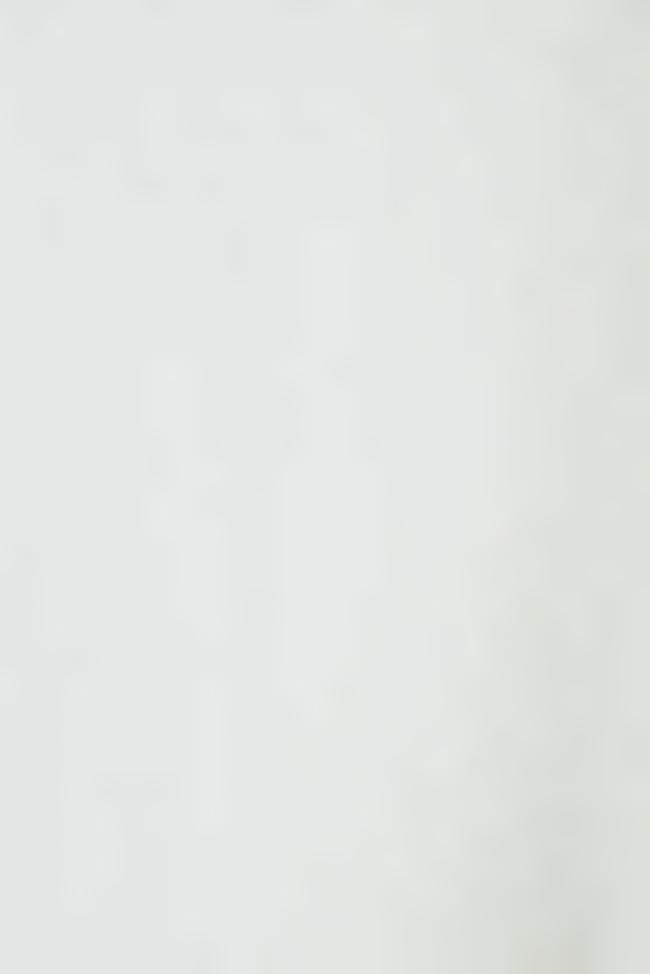
- (a) initiating MOE field response by contacting Regional Emergency Response Staff;
- (b) contacting other agencies as required, e.g., police, fire department, ambulance, Coast Guard, Canutec, municipalities, U.S. authorities;
- (c) notifying senior MOE management of serious incidents and coordinating information flow with the communications Branch;
- (d) establishing contact with the Minister regarding major spills and conveying orders from the Minister where necessary;
- (e) ensuring that potentially affected parties are notified/warned;
- (f) liaising with and providing support for agencies in charge when a spill involves an emergency situation;
- (g) providing information on chemicals and clean-up techniques to MOE staff and others; and
- (h) recording details of complaints and/or incidents and forwarding them to relevant District Offices or other agencies for response during normal business hours.
- 4. Operating Procedures
 Updating

The full <u>Operating Procedures</u> are designed to be updated continuously. Current information contained in the document is available from SAC.











POLICY TITLE

GUIDELINES FOR HEARINGS ON WASTE DISPOSAL SITES

NO

14-01-01

Legislative Authority

the Environmental Protection Act, Part V

Statement of Principles

This policy describes when Hearings on Waste Disposal Sites are either mandatory or discretionary under Section 33, Part V of the Environmental Protection Act.

1. Mandatory Hearings On Waste Disposal Sites

1.1 New Sites

All new Waste Disposal Sites used for final disposal of any of the following materials will require mandatory hearings:

- (a) liquid industrial wastes in any amounts;or
- (b) hazardous wastes in any amounts; or
- (c) municipal waste in excess of 1,500 population equivalent.

1.2 Exclusions

Organic soil conditioning sites and "processed organic waste" sites are not considered Waste Disposal Sites and are thus not subject to mandatory hearings.

August 22, 1986

Point of Contact

Director, Approvals Branch

Effective Date

January 1, 1980

1.3 Extension to Existing Sites

1.3.1 Liquid Industrial Wastes and Hazardous Wastes Mandatory hearings will be required in the case of extensions to Waste Disposal Sites used for disposal of liquid industrial wastes or hazardous wastes in any amount, if such extensions were not provided for in the hearing at the time of the initial or subsequent certification.

1.3.2 Need for Increased Volume

Site owners are encouraged to consider the future need for increased volume at the time of initial certification to avoid unnecessary subsequent hearings.

1.3.3 Conditioning the Initial Certificate

Unnecessary subsequent hearings may be avoided if the certificate is conditioned as follows:

The site shall not receive wastes other than those identified in the application unless first approved by the Director and at no time shall the site accept wastes from all sources in excess of X gal. or tons per year.

1.3.4 Industrial Wastes Intended for Municipal Sites

A mandatory hearing is required in the case of extensions to sites approved for municipal garbage only when liquid industrial wastes and hazardous wastes are intended for disposal.

1.3.5 Municipal Waste

A mandatory hearing is required in the case of extensions to Waste Disposal Sites for the purpose of accepting municipal garbage if the increased waste load exceeds 1,500 population equivalent. Operators of municipal sites are also encouraged to consider future needs as described in 1.3.2 above.

1.4 <u>Hearing</u> <u>Arrangements</u>

In the case of new sites or extensions to existing sites, recommendations to the Director are not necessary. Staff will proceed automatically to arrange the hearing.

2. Discretionary Hearings

In all other cases, hearings are discretionary and recommendations from the Regional Office must accompany the applications.

2.1 Factors for Regional Office

The Regional Office in formulating its recommendations should consider the following conditions:

2.1.1 Hearings Called

A hearing will be held if:

- (a) a site is used to process, hold, condition or otherwise receive but not dispose of either liquid industrial wastes or hazardous wastes, unless sufficient justification is presented for not holding a hearing. As part of this justification, the Director shall consider the intent of the facilities. Facilities that are involved in the processing of wastes for reuse should be encouraged where the technology is proven and a proven market for the products are available; or
- (b) a transfer station will be used for extended indefinite storage where there is no current approval for final disposal of the waste; or
- (c) a request is received from council of the municipality in which the site is proposed to be located; or
- (d) a significant number of public requests are received; or
- (e) if the proposed use of land is inconsistent with official plans or zoning by-laws.

2.1.2 Hearings May Be Called A hearing may be called if:

- (a) there is likely to be a significant off-site impact; or
- (b) a site design operation may require special evaluation; or
- (c) other unanticipated factors suggest.
- 2.2 Notification of Municipality When Hearings Not Recommended

In cases when a hearing is not recommended, the Regional Office shall notify the municipality by letter to indicate that a hearing is not required and requesting that comments in the matter be submitted to the Director. In reorganized municipalities and counties with county waste disposal sites or waste management systems, both levels of government should be notified. If a disposal site is at or near a Municipal boundary, then advising the adjoining municipality should be considered by the Regional Office.

2.3 Suggested Letter

A suggested letter is provided.

SUGGESTED LETTER

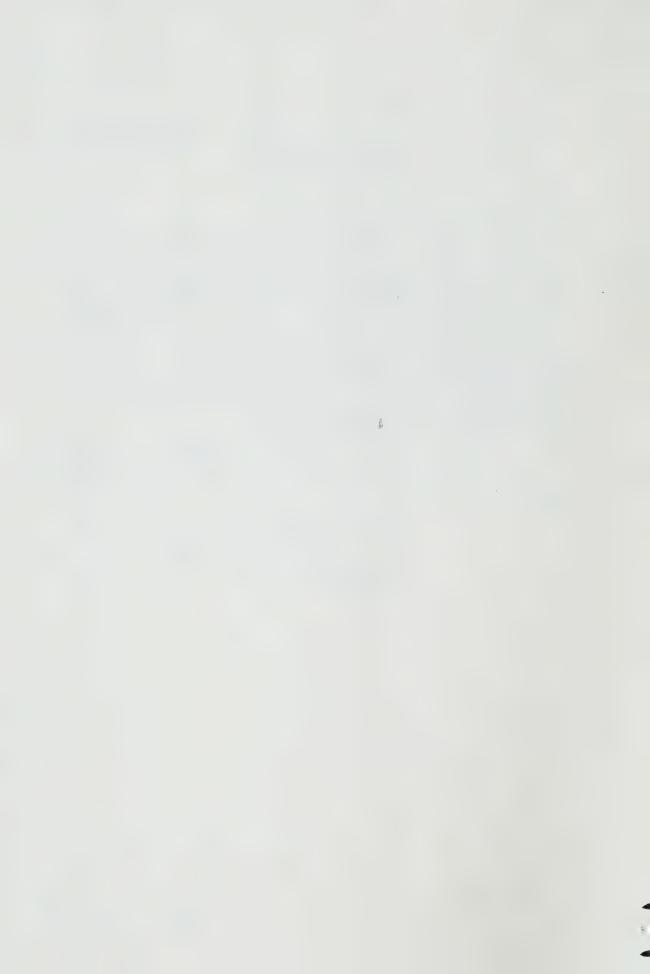
To: Clerk of the Municipality

The Central Regional Office of the Ministry of the Environment has received an application from for certification of a waste disposal site to be located on Parts of Lot 3, Concession 4, Township of The attached application form provides details as to the nature of the operation to be carried out at the site.

In our review of this matter we have concluded that a hearing by the Environmental Assessment Board is not necessary and we intend to recommend to the Director that a hearing not be held in this instance. As you may be aware, the Director has discretion under the Environmental Protection Act, Part V, to hold a hearing on applications of this type if he feels it necessary.

Should council wish to make comments with respect to its attitude on the need or otherwise for a hearing, it may write directly to:

Regional Director Central Region Ministry of the Environment 7 Overlea Boulevard TORONTO, Ontario. M4H 1A8





POLICY TITLE

PARTICIPATION IN HEARINGS ON WASTE DISPOSAL SITES

NO 14-02-01

Legislative Authority

the Environmental Protection Act, Part V

Statement of Principles

This policy concerns the maintenance of the neutrality of the Ministry during the course of hearings on Waste Disposal Sites. The policy is intended to permit the Director of Approvals to arrive at an impartial decision on a Certificate of Approval for Waste Disposal Sites.

Definitions

Director of Approvals

Director of Approvals refers to an employee of the Ministry appointed in writing as "The Director" by the Minister to exercise authority over the operation of Waste Disposal Sites.

Legislative Authority: the Environmental Protection Act.

Section 4.

Rev. 1 - October 10, 1980

Point of Contact

Director, Legal Services Branch

Effective Date

November 1, 1979

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Certificate of Approval

"Certificate of Approval" refers to the authorization by the Director for the operation of a Waste Disposal Site including the terms or conditions of the certificate.

Legislative Authority: the Environmental

Protection Act, Section 31.

Ministry Participation in Hearings on Waste Disposal Sites

1.1 Neutrality at Hearings

Neither the Ministry nor its Directors will convey partisanship for an applicant in a Hearing nor shall they demonstrate or appear to demonstrate partisanship for interested parties in an application unless specifically authorized.

1.2 MOE Technical Reports

MOE technical reports concerning the proposed Site will be available to the Environmental Assessment Board and to all parties to the Hearing on equal basis.

1.3 Testimony by MOE Employees

MOE employees who have expertise and information concerning the proposed Site will be available to testify on the request of the Board.

1.4 Counsel

No counsel will be provided by MOE at the Hearing except to assist MOE staff who are called upon to testify and only during that portion of the hearing when they are testifying.

1.5 Expert Witnesses

Ministry expert witnesses may, when asked, testify based upon the conclusions reached within the limits of the expertise. They must advise the Hearing that such opinions are not necessarily those of the Ministry.

1.6 Departures From Neutrality

- (a) if sufficiently strong reasons indicate a departure from neutrality, the Regional Director shall ask to be made a party to the Hearing to put forward his position;
- (b) where the Ministry has initiated an application for approval for a Waste Disposal Site under the Environmental Assessment Act the Ministry will of necessity become a proponent. MOE employees will be required to depart from neutrality in the normal discharge of their duties.

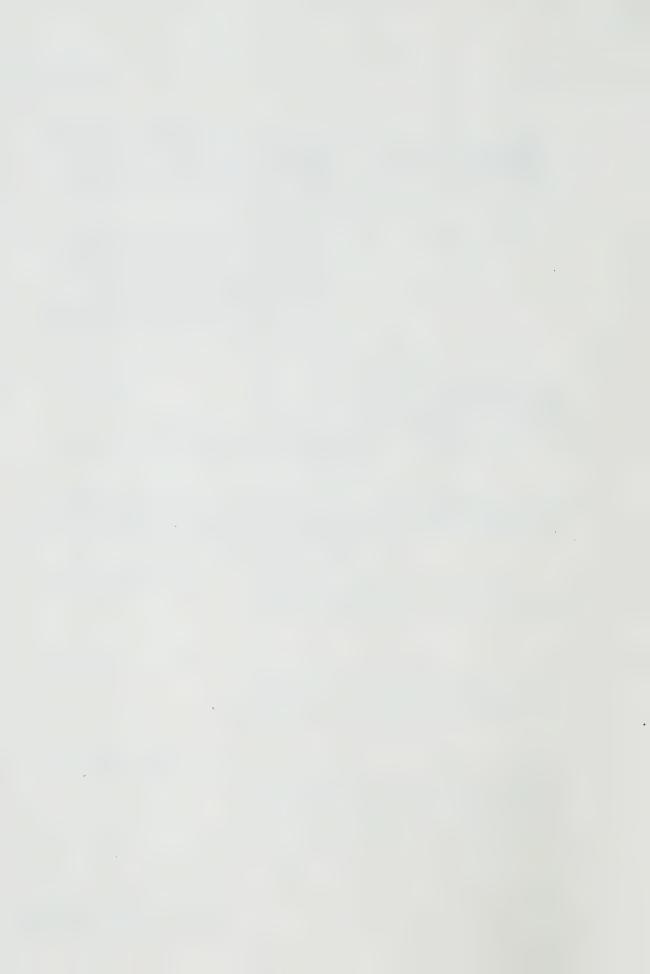
2. Authority for Waste Disposal Site Hearings

2.1 Current Practice

The <u>Environmental Protection Act</u> is the prevailing authority for Waste Disposal Site Hearings.

2.2 Practice Where OMB Involved

In the future where approval of the Ontario Municipal Board is also required, the Hearing conducted shall address both environmental and planning matters.





POLICY TITLE REGIONALIZATION OF APPROVALS RESPONSIBILITIES FOR WASTE DISPOSAL SITES

NO

14-03-01

Legislative Authority

the Environmental Protection Act, Part V

Statement of Principles

This policy describes the regionalization of approvals responsibilities for waste disposal sites to each Regional Director or his designated alternate(s).

The policy intends that Regional Directors will be appointed to act as Directors for purposes of the <u>Act</u>. This will enable them to deal with Waste Disposal Site applications.

1. Regional Director's Role

Each Regional Director or his designated alternate(s) will assume within the limits of his respective MOE regional boundary the responsibility as the "Designated Director" for the processing of applications for approval of Waste Disposal Sites (not Waste Management Systems) made under Part V of the Environmental Protection Act except where:

1.1 Exceptions

(a) hearings on the applications are mandatory under Section 33a;

August 22, 1986

Point of Contact

Director, Approvals Branch

Effective Date

November 17, 1982

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- (b) the applications are with respect to any emergency situation as defined in Section 33b for which a hearing would otherwise be required under Section 33a;
- (c) a hearing is to be held under Section 33c as may be determined through consultation between the respective Regional Director and the Director, Approvals Branch, in accordance with the "Guidelines for Hearings Under Part V, Environmental Protection Act".
- (d) a Certificate of Approval was originally approved by the Director of the Approvals Branch pursuant to the exceptions 1.1(a)(b)(c). The Regional Director shall not issue a new Certificate of Approval to cover amendments or additions for that same piece of property nor re-issue the Certificate of Approval to allow for amendments.

1.1.1 Where Hearings Are Required

Where hearings are held, the Regional Director will notify the applicant in writing as early as possible that:

- (a) Approvals Branch will handle the application; and
- (b) the Director, Approvals Branch will base his decision upon the Board's report.

Director, Approvals Branch

All other applications not within the authority of the Regional Director as set out above will continue to be the responsibility of the Director, Approvals Branch or his designated alternate(s).

3. District Officers Role

Municipal and Private Industrial Abatement District Officers are appointed as Directors for organic soil conditioning sites. (See attached Schedule).

Regional Directors should ensure that:

- (a) each District Officer only deals with applications for his area;
- (b) each responsible District Officer makes arrangements for a specific replacement when he is on vacation or otherwise unavailable. The replacement may be the Regional Director, an Assistant Director, or a District Officer named by the Regional Director in writing.

Normally, only one District Officer should handle all applications from his assigned area. Where a hearing is to be held under Section 32 the matter will be dealt with by the Approvals Branch as set out above.

3.1 Technical Details

Technical details may be found in "Sewage Sludge Utilization Guidelines Implementation Program, November 9, 1979".

4. Summary of Responsibility

Director, Approvals Branch

- all applications concerning Waste Management systems
- all applications concerning Waste
 Disposal sites which require a hearing
 - . liquid industrial wastes
 - . hazardous wastes
 - . sites serving a population in
 - excess of 1,500
 - . all other sites where it is determined a hearing will be held.

Designated Directors for the Regions

- applications concerning Waste Disposal sites which do not require a hearing:
 - sites serving a population less than 1,500
 - organic soil conditioning sites
 "Processed organic waste"
 - disposal sites (sewage sludge)



POLICY TITLE

ENERGY FROM WASTE PROGRAM - MUNICIPAL SOLID WASTE SECTION

NO

14-04-01

Legislative Authority

Statement of Principles

This policy describes the responsibilities of the Ministry of the Environment under the Municipal Solid Waste section of the Energy From Waste (EFW) Program. The complete Energy From Waste Program is described in detail in the recent booklet Energy from Waste: A Program for Ontario (Toronto: Ministry of Energy, 1980).

1. Objectives of Energy From Waste Program

The Energy From Waste (EFW) Program is an important part of Ontario's contribution to the goal of national energy self-sufficiency. The production of energy from waste will allow Ontario to reduce its need for fossil fuels thereby contributing to greater energy self-sufficiency and energy security. The EFW Program is intended to foster energy conservation through material recovery wherever practicable.

1.1 Municipal Solid Waste

The Municipal Solid Waste section of the EFW Program is designed to promote and establish a viable energy from waste recovery industry based on the utilization of municipal solid waste.

March 15, 1981

Point of Contact

Supervisor, Municipal Waste Management Unit, Waste Management Branch

Effective Date

December 1, 1980

2. Responsibilities Under The EFW Program

The Ministry of Energy has been designated the lead agency for the EFW Program.

The Ministry of Energy, assisted by the Ministry of Environment, has the responsibility for helping municipalities to develop viable EFW operations. The diagram on p. 24 of Energy From Waste: A Program for Ontario gives greater detail on the breakdown of responsibilities.

3. Administration

Administration of the Municipal Solid Waste section of the EFW Program is provided by the Interministerial Municipal Solid Waste Management Co-ordinating Committee.

3.1 Responsibilities Of Interministerial Committee

The Interministerial Committee is responsible for the following:

- (a) implementation of a uniform approach to assistance for project development and capital assistance;
- (b) integration of Provincial activities in energy from waste and waste management with municipalities and the private sector;
 - (c) establishment of a joint Project Steering Committee with representation from other Ministries and agencies as appropriate;
 - (d) allocation of lead responsibility for EFW projects;
 - (e) development of an expanded research and development program for Energy From Waste at the Ministry of Environment's Experimental Plant for Resource Recovery;

(f) co-ordination of public information regarding the EFW Program.

$\begin{array}{c} \textbf{3.2} & \underline{\text{Membership Of}} \\ & \underline{\text{Interministerial}} \\ \hline & \text{Committee} \end{array}$

Membership is drawn from the following:

- (a) Ministry of Environment Waste Management Branch, Policy and Planning Branch;
- (b) Ministry of Energy Conservation and Renewable Energy Group.

4. Energy From Waste Program

The EFW program is designed to establish an energy from waste industry, and substantial waste recovery, based upon the utilization of:

- (a) municipal solid waste;
- (b) forest waste:
- (c) agricultural waste; and
- (d) industrial waste.

4.1 EFW Approaches

The EFW Program will emphasize the following approaches:

- (a) emphasis in commercial projects using proven technology;
- (b) promoting private sector participation;
- (c) advancing municipal interests;
- (d) providing support for research, development, and process demonstration;
- (e) flexibility in financial support for projects.

Further detail on these measures is contained on pp. 16-25 of Energy From Waste: A Program for Ontario.

5. <u>Technical Advisory</u> <u>Services</u>

Technical advisory services regarding EFW plants and equipment are available from:

(a) Energy from Waste Unit Ontario Ministry of Energy, 56 Wellesley Street West, Toronto, Ontario, M7A 2B7

and

(b) Waste Management Branch
Ontario Ministry of the Environment
40 St. Clair Avenue West
Toronto, Ontario, M4V 1M2

6. Preliminary Assessment

The Ministries will provide a preliminary assessment of project proposals provided that the following conditions have been met:

- (a) a reliable supply of waste has been identified;
- (b) a dependable energy market has been identified;
- (c) a proven conversion technology exists;
- (d) a financial analysis has been performed using information provided on the appended form.

7. Feasibility Studies

Feasibility studies to examine the technical and economic feasibility of EFW projects are completed by consultants as part of Project Development.

7.1 Project Steering Committee

A Project Steering Committee is established to oversee the feasibility study. The Committees membership includes:

(a) two representatives from the Ministry of Energy;

- (b) two representatives from the Ministry of Environment (one each from Waste Management Branch and Regional Operations);
- (c) two representatives from the municipality;
- (d) two representatives from private industry where appropriate.

7.2 Study Funding

Current cost sharing arrangements for EFW Waste Management Studies are:

- (a) Provincial share 50%;
- (b) Municipal share 25%;
- (c) Industry share 25%.

8. Feasibility Criteria

Projects must meet the following criteria to be eligible for assistance:

- (a) the project should have been developed through preliminary assessment, detailed feasibility study, and final design and financing;
- (b) the project must be viable in the long term based on conservative scenarios for future energy prices and for current and projected real costs to municipalities for collection, transport, and disposal of solid waste ("tipping fees");
- (c) all other forms of assistance from established programs must have been explored and obtained as far as possible;
- (d) supplementary direct capital loan assistance from the Province may be made available to overcome initial risks and possible cash flow shortfalls in the early years of a project.

9. Financial And Cost-Benefit Analysis

A broad financial and cost-benefit analysis based upon factors such as:

- (a) energy benefits;
- (b) environmental benefits;
- (c) industrial development;
- (d) technological development; and
- (e) encouragement of private sector investment;

will be used to determine the appropriate means and extent of such assistance.

10. Environmental Assessment

Interested parties are reminded that Municipal Solid Waste projects are subject to the requirements of the <u>Environmental</u> Assessment Act.



POLICY TITLE

THE MANAGEMENT OF BIOMEDICAL WASTE FROM HEALTH CARE FACILITIES AND MEDICAL LABORATORIES

NO

14-05-01

Legislative Authority

the Environmental Protection Act and Regulation 309.

Statement of Principles

This policy is intended to ensure the proper and safe management of this waste and provide direction to waste generators, carriers and operators of disposal facilities and landfills. The policy will also be made available on request to provide advice to other regulatory agencies and municipalities.

The policy includes a reference to the Ministry's criteria document for the design, assessment and operation of biomedical waste incinerators, which is also to be used by MOE staff in the approval of new or modified biomedical waste incinerators.

1. <u>Classification of Types</u> of Waste

1.1 Biomedical Waste

Biomedical waste originates in health care facilities, doctor's offices, diagnostic and research laboratories and mortuaries. This waste may be hazardous to public health and may include anatomical waste such as human or animal tissue and body parts.

Point of Contact

Director, Waste Management Branch

Effective Date

August 8, 1986

Biomedical waste for the purposes of this policy includes both pathological waste and infectious waste. Communicable diseases are defined in schedules of the Ontario Health Protection and Promotion Act 1983 and the Canada Animal Disease and Protection Act.

1.1.1 Pathological Waste

Pathological Waste is a waste that is any of the following:

- (1) Human anatomical waste including any part of the human body with the exception of extracted teeth, hair, nail clippings and the like.
- (2) Animal anatomical waste which is all or part of a carcass suspected of being infected with a disease communicable to humans or animals.

1.1.2 Infectious Waste

Infectious waste is waste of any type which is contaminated or suspected to be contaminated with the causative agents of infectious disease or their toxic products and capable of infecting or causing disease in susceptible individuals or animals exposed to them.

To be classified as "infectious", waste should not merely contain pathogens but should also be capable of transmitting infection. An understanding of the factors necessary for transmission of infection is useful in classifying waste as infectious.

Infectious waste may include:

- (1) Human anatomical;
- (2) Animal anatomical;
- (3) Non-anatomical;
- (4) Microbiological;
- (5) Blood, blood products, and body fluids suspected to contain microbial agents of disease:

(6) Waste generated by patients in isolation (for communicable diseases).

1.2 Other Biomedical Waste Requiring Special Handling

Waste other than those biomedical waste categories described above may be generated from time to time and shall be disposed of properly. These are:

- (1) Hospital and health care waste considered not to be infectious;
- (2) Non-anatomical waste that has been decontaminated in a device approved for that specific purpose;
- (3) Sharps (e.g., needles, scalpels, etc.);
- (4) Radioactive waste, chemical and chemotherapy waste, and organic waste (solvents) are not included in these guidelines. Reference should be made to other publications dealing with the safe handling and disposal of these waste categories.

2. Handling, Transportation, Manifesting and Disposal of Biomedical Waste

The Ministry's "Guidelines for the Handling and Disposal of Biomedical Wastes from Health Care Facilities and Laboratories, 1986" provides full details on procedures to be followed. They include a reference list of supplementary documentation and occupational safety procedures for personnel handling this waste.

3. <u>Incineration of</u> Biomedical Waste

The Ministry's publication "Incinerator Design and Operating Criteria - Volume II: Biomedical Waste Incinerators" provides criteria to assist in the design, assessment and operation of biomedical waste incinerators. The document includes a description of the physical and chemical characteristics of biomedical waste, and a review of the various technologies available for its incineration.

Ministry staff should apply the criteria contained in the above-noted publication to the approval of new biomedical waste incinerators and any existing hospital incinerators requiring major process modifications.



POLICY TITLE

REGISTRATION ON TITLE OF CERTIFICATES OF APPROVAL FOR WASTE DISPOSAL SITES

NO

14-06-01

Legislative Authority

the Environmental Protection Act, Part V.

Statement of Principles

This policy concerns the registration on title of Certificates of Approval and Provisional Certificates of Approval for Waste Disposal Sites.

1. Objective Of Policy

This policy is designed to ensure that members of the general public may become informed on the basis of their own investigation about the use of municipally or privately owned land for Waste Disposal Sites which may result in potential hazards.

1.1 Present or Future Disposal Sites

This policy will apply to all existing and new Waste Disposal Sites in which waste is disposed of on or in the ground (other than such sites as soil conditioning sites).

1.2 Past Disposal Sites

This policy will not apply to abandoned Waste Disposal Sites (certified or uncertified) unless specific safety hazards noted in Section 2 below have been identified.

August 22, 1986

Point of Contact

Director, Waste Management Branch

Effective Date

February 10, 1981

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1.3 Sites on Unpatented Crown Land

This policy does not apply to sites located on unpatented Crown Land. Please refer to Ministry of Natural Resources policy LA 2.02.03 for details.

Potential Hazards From Waste Disposal Sites

Potential hazards associated with Waste Disposal Sites include:

- (a) Contamination of ground and surface water;
- (b) Methane gas production and migration;
- (c) Leachate (liquid) production and migration;
- (d) Land settling due to waste settling and decomposition;
- (e) Other as yet unknown hazards.

3. Registration On Title

Requirements imposed by a Director upon any Waste Disposal Site as conditions in a Certificate or Provisional Certificate of Approval become part of the Certificate or Provisional Certificate of Approval.

3.1 <u>Section 18(1)</u> <u>EP Act</u>

Conditions in a Certificate of Approval bind the successor or assignee of the interest in the land.

3.2 Registration

Registration on title shall be implemented by the Director requiring the Certificate holder to follow the appropriate registry procedure of either:

- (a) The Land Titles Act; or
- (b) The Registry Act.

4. Buffer Zones

The following provisions shall apply to buffer zones surrounding Waste Management Sites.

4.1 Operating Waste Disposal Sites

Registration on title for buffer zones shall be required for all buffer zones owned by the owner or operator of the Waste Disposal Site. Where buffer zones are not owned by the owner or operator of the site, the owner or operator of the site will be required by the Director to carry out a study of the potential hazards and implement remedial measures.

4.2 New Waste Disposal Sites

The buffer zone for all new Waste Disposal Sites shall be owned by the owner or operator of the site and shall be registered on title as in Section 3 above prior to certification. Other registered interests in land intended for buffer zones such as easements may be sufficient in some cases in place of ownership.

5. Abandoned Waste Disposal Sites

Where hazards noted under Section 2 above have been identified at abandoned Waste Disposal Sites, the following measures shall be employed to notify the public of the hazards:

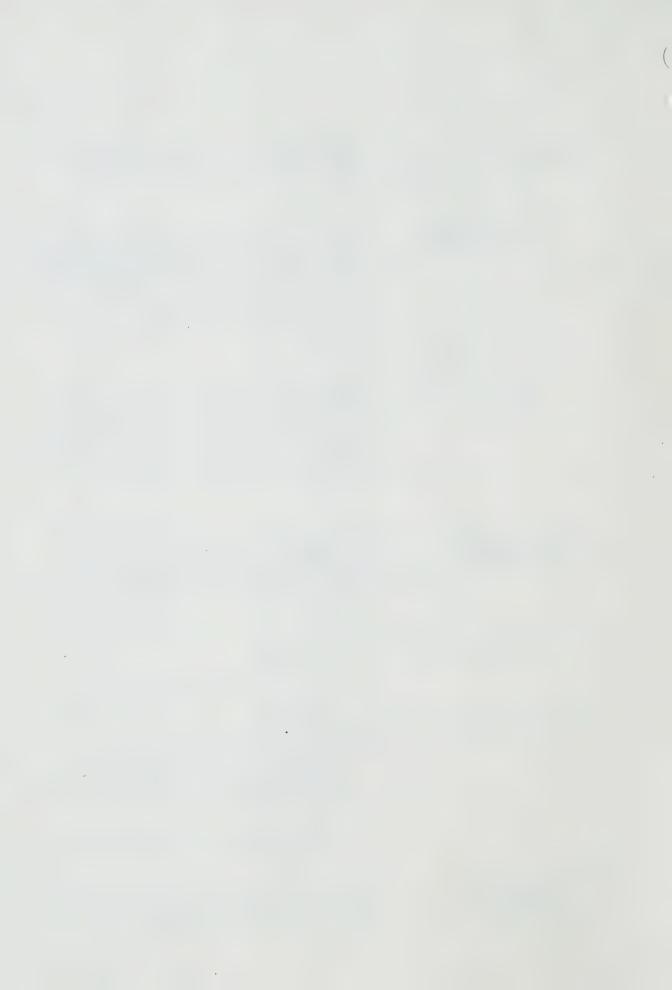
5.1 Director's Actions

The Director may

- (a) issue a Control Order and require registration on title as in Section 3 above; or
- (b) encourage the municipality to take appropriate steps with respect to official plans, restricted area (zoning) bylaws, subdivision control and severance control; or
- (c) offer advice on remedial measures to property owners.

5.2 Municipalities Actions

Municipalities may control potential hazards by invoking the measures under 5.1(b) and (c) above, or by municipal ownership of the property.





POLICY TITLE

HANDLING, TRANSPORTATION AND DISPOSAL OF ASBESTOS WASTE IN BULK

NO

14-07-01

Legislative Authority

Part V, Environmental Protection Act Regulation 309

Statement of Principles

This policy provides a consistent basis for the review and operation of waste management systems that handle asbestos waste in bulk. Ministry approval for these systems is required by the asbestos amendments to Regulation 309 and Section 27 of the Environmental Protection Act. Added detail can be found in the "Guidelines for the Handling, Transportation and Disposal of Asbestos Waste in Bulk".

Definition

Asbestos Waste In Bulk

means asbestos waste that is handled in reusable rigid containers that are part of the collection vehicle and that when lined use a single impermeable liner.

1. Objective

The asbestos amendments to Regulation 309 permit the disposal of asbestos waste in any approved sanitary landfilling site. In addition to legalizing the disposal method, the amendments imposed standards for waste handling, packaging, transportation, vehicles and disposal sites. This policy and associated Guidelines provide basic standards for these systems.

June 15, 1984

Point of Contact

Director, Waste Management Branch

Effective Date

June 15, 1984

2. Application

The Guidelines are intended to be used by equipment owners to provide a basis upon which bulk handling systems can be operated. In addition, they are to be used by staff from the Approvals Branch and Operations Division for the review systems during approval and monitoring.

Alternative waste management techniques may be used where they are consistent with the overall intent of the Guidelines. Assistance in their interpretation can be obtained from the Waste Management Branch.

3. Guidelines for the Handling, Transportation and Disposal of Asbestos Waste In Bulk

The Guidelines provide basic standards for bulk asbestos waste transported using (a) industrial vacuum loaders and (b) lugger-box type containers. Major components of the Guidelines are summarized below.

3.1 <u>Industrial Vacuum</u> <u>Loaders</u>

Standards for industrial vacuum loaders require that in most cases asbestos emissions to the atmosphere from vacuum exhausts not exceed the one-half hour average guideline of 5 ug/cu metre at the point of impingement. Conditions will be placed on the Certificate of Approval specifying the minimum distance allowable to the nearest receptor to ensure that this guideline is met.

3.1.1 Discretion of Regional Director The Guidelines provide the Regional Director with the discretion to set aside the minimum distance where it can be demonstrated that the requirements are unnecessarily restrictive or in some cases not restrictive enough. This discretion is allowed since the one-half hour average was developed for permanent installations to ensure that the 24 hour ambient air quality guideline of 0.4 fibres/cubic centimetre is not exceeded.

Since vacuum loaders are mobile and operate only intermittently at given locations, the one-hour guideline may be too stringent in some instances. The Waste Sites and Systems Approvals Unit of the Approvals Branch can provide assistance in reviewing the guideline.

3.2 <u>Lugger-box</u> Containers

Standards have been provided for lugger boxes handling either dry or pelletized asbestos.

3.2.1 Dry Asbestos

These standards require that dry asbestos be collected in polyethylene bags that are sealed from the atmosphere during loading to ensure that no asbestos fibres can escape. This can be achieved by venting back displaced air to control equipment.

3.2.2 Pelletized Asbestos

Pelletized asbestos waste can be collected and transported in lugger boxes that have been lined with polyethylene sheets. The intent of the polyethylene in this case is to ensure that there is no contact between the box and the asbestos. In those cases where there is contact, residues must be washed from the lugger box and discharged with the asbestos waste into the depression prepared at the landfilling site.





POLICY TITLE BURNING AT LANDFILLING SITES

NO 14-08-01

Legislative Authority

the Environmental Protection Act. Ontario Regulations 824 and 15, Section 6.

Statement of Principles

Regulation 824, with the proposed amendments, does not prohibit burning at landfilling sites. Burning may help decrease the availability of organics to birds, rodents, vectors and in some of the northern sites, bears. As a result, if burning can be conducted in a safe and environmentally acceptable manner, the Ministry has established the following guidelines.

OPERATIONAL REQUIREMENTS

1. Weather Conditions

Burning should be carried out only when prevailing weather conditions are suitable, i.e., no high winds, and the operation should be supervised.

2. Undesirable Emissions

Prior to burning, tires, plastics or wet materials which may cause smoke or other undesirable emissions must be segregated and not burned.

January 27, 1982

Point of Contact

Director, Waste Management Branch

Effective Date

October 21, 1981

3. Permits

Permits as required by the Ministry of Natural Resources, Municipalities, or other agencies, must be obtained in order to ensure appropriate safety precautions and the prevention of fires.

4. Extinguishing Requirements

The area of burning on the landfilling site must be restricted in order to enable the operator to extinguish the fire immediately if necessary due to a change in weather or other conditions or if so ordered by Ministry staff. The operator must also provide proof of his ability (i.e., on-site equipment or written agreement with local fire control agency) to extinguish the fire.

5. Access Control

Access to the landfilling site by the public and other unauthorized personnel must be controlled when burning is carried out.

6. Resolution of Complaints

Complaints from local residents regarding smoke or odour emissions will have to be resolved by the operator. If this is not corrected satisfactorily, the operator will be ordered to stop burning.

7. Compliance with EPA and Regulation 15

Site operators should comply with Regulation 15 and Section 14 of the Environmental Protection Act when burning.

8. Permission For Burning

Burning will not be permitted at new sites except in accordance with the operations program proposed by the operator at the time the Certificate of Approval is applied for. The program should deal with the above issues and any others that may be relevant to the site. A draft program is available from the Ministry of the Environment on which the operator may wish to base his proposal. Where problems are encountered with burning at existing sites, the operator may be requested either to stop burning or make a satisfactory proposal to control burning for incorporation in the Certificate of Approval for the site. If the operator does not comply voluntarily with such request, formal action to require him to stop burning may be taken under provisions of the Environmental Protection Act such as Sections 6, 7, or 39. Appeals are available from any proposed action by the Ministry under these sections.



POLICY TITLE GUIDELINES FOR LANDFILLING SITES IN ONTARIO

NO 14-09-01

Legislative Authority

the Environmental Protection Act Ontario Regulation 824

Statement of Principles

This policy statement authorizes the implementation of measures to control the establishment, operation, management, maintenance and closure of landfilling sites in Ontario. Reference should be made to the Ministry's <u>Guidelines for the Establishment</u>, Operation, Management, Maintenance and Closure of <u>Landfilling Sites in Ontario</u> for a complete statement of measures required. Persons interested in establishing or managing a landfilling site are strongly advised to consult Ministry Regional staff for additional information and assistance.

Definition

Landfilling

the disposal of waste by deposit, under controlled conditions, on land or on land covered by water, and includes compaction of the waste into a cell and covering the waste with cover materials at regular intervals.

1. Objective of Policy

This policy is intended to provide guidance to Ministry of Environment field staff on requirements relating to landfilling waste disposal sites. It will also assist persons who intend to establish or manage a landfilling site.

January 27, 1982

Point of Contact

Director, Waste Management Branch

Effective Date

October 26, 1981

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2. Application Of Policy

Adherence to the principles advanced in the Ministry's <u>Guidelines</u> will be required for approval by the Ministry of the Environment under Section 31 of the Environmental Protection Act, 1971.

3. Engineering Methods Of Landfilling

This policy establishes an engineering method of disposing of wastes in or on land without creating nuisances or hazards to public health or safety.

3.1 Minimum Levels Of Performance

This policy contains minimum levels of performance normally required at landfilling sites and discusses commonly used methods of achieving these levels.



POLICY TITLE

APPROVAL OF EXISTING WASTE PROCESSING FACILITIES (RECYCLING)

NO

14-10-01

Legislative Authority

Part V, Environmental Protection Act and Regulation 309.

Statement of Principles

This policy provides for the review, certification and operation of existing facilities and carriers involved in managing wastes. Ministry of Environment approval for these facilities and carriers is required by the amendments to Regulation 309 and Section 27 of the Environmental Protection Act.

DEFINITIONS

- (a) Recyclable Material means waste transferred by a generator and destined for a site,
 - (i) where it will be wholly utilized, in an ongoing agricultural, commercial, manufacturing or industrial process or operation used principally for functions other than waste management and that does not involve combustion or land application of the waste,
 - (ii) where it will be promptly packaged for retail sale, or
 - (iii) where it will be offered for retail sale to meet a realistic market demand.

but does not include hazardous waste or liquid industrial waste unless the transportation from generator to site is direct.

May 1, 1986

Point of Contact Director, Waste Management Branch

Effective Date

April 25, 1986

- (b) Wholly utilized means that all of the waste enters the process or operation.
- 1. Policy Objective

The objective of this policy is to phase-in the review and possible approval of existing processing facilities that manage or prepare wastes for subsequent reuse and carriers that transport these wastes. These facilities include solvent and waste oil recovery operations.

- 2. <u>Interpretation and Application</u>
 - 2.1 <u>Previous</u> Definition

The previous definition of Liquid Industrial Waste in Regulation 313 provided an exemption from the use of manifests for wastes that were wholly reused or recycled. This definition was difficult to interpret and apply. As a result of the current definition of Recyclable Material provided by the Regulation 309 amendments, which went into force on September 17, 1985, waste processing facilities now clearly require certification.

2.2 Current Definition

Recyclable Materials are considered to be raw materials and as such obtain a complete regulatory exemption by Regulation 309 from Part V of the EPA. They are limited to wastes that are taken for a use to a manufacturing, agricultural or commercial process, whose function is other than waste management. Recyclable Materials essentially replace equivalent raw materials.

2.3 Application of Definition to Manufacturing, Agricultural, Commercial or Industrial Processes

For the application of this definition, processes that are feasible without the use of waste material are not considered to be waste management facilities and therefore are receiving recyclable materials. However, processes that are not feasible without the waste material, for example, a waste oil refinery, are considered to be waste management facilities and subject to Part V requirements.

2.4 Transportation of Recyclable Materials

Hazardous and liquid industrial wastes must be transported directly from generator to ultimate receiver to have the potential to be defined as Recyclable Materials. If intermediate transfer or processing is required the exemption cannot apply until these operations/processes are complete and the waste is destined for the ultimate receiver.

3. Regional Assessment

3.1 Review by Facilities and Carriers

Facilities and carriers managing wastes for reuse that were previously exempt from manifest requirements will have to review their operations to determine if the exemption still applies. If wastes handled do not fit within the Recyclable Material definition, applications for approval must be submitted to the Ministry. As examples, solvent recovery and oil re-refining facilities must be certified. MOE Regional staff should inform known facilities and carriers of this amendment to the regulation.

3.2 Timing of Applications for Certificates of Approval

- (a) Applications for Certificates of Approval for existing facilities should be received by the Ministry by September 17, 1986. Applications received after that date will be treated as applications for new facilities and the policy "Guidelines for Hearings on Waste Disposal Sites" (No. 14-01) should be followed in addressing them.
- (b) An existing facility is one which was established prior to the effective date of Regulation 309 (September 17, 1985). If no application by an existing facility is received by the Ministry by September 17, 1986, then the facility will be in violation of Part V of the Environmental Protection Act.

4. Application for Certificates of Approval

4.1 Conditions on Certificates

If regional assessment of the application for approval of a facility identifies problems, the Certificate of Approval should be issued with conditions to correct problems and gain compliance. In those cases where compliance cannot be achieved through conditions, the application should be denied.

4.2 Facility Changes

If the proponent applies for major changes to the existing facility, such as adding different generic waste classes for treatment at the facility, the policy "Guidelines for Hearings on Waste Disposal Sites" (No. 14-01-01) as amended should be followed to determine the need for a hearing.

5. Information Required for Applications for Certificates of Approval

5.1 Waste Disposal Sites (Processing)

The following general information should be required for the review and issuance of a Certificate of Approval for receivers processing wastes for reuse:

- process description, including equipment and operating details, drawings, waste segregation techniques and land use in the vicinity of the site;
- volume of wastes stored on-site including drums;
- tankage volume;
- classes, characteristics and quantities of wastes received;

- classes, characteristics and quantities of wastes generated (generator registration may be required for these wastes);
- details on the treatment or disposal of generated wastes, including contaminant removal efficiencies;
- types and amounts of products shipped;
- contingency plans;
- bond or letter of credit.

Additional detailed information may be required in specific cases.

5.2 Waste Management Systems

The following general information should be required for the review and issuance of a Certificate of Approval for waste management systems:

- liability insurance for \$1,000,000;
- number and types of vehicles;
- vehicle licence plate and registration numbers;
- list of waste classes to be transported;
- list of receivers to be used and identification of which waste classes will go to which receiver;
- if waste is transported out-of-province, the out-of-province receiver must be identified and a check on the receiver is usually required;
- areas of service (i.e., counties in Ontario, Michigan, etc.);
- company registration information;
- company driver training programs.

Additional detailed information may be required in specific cases.

6. Hearing Requirements

Section 30 of the $\overline{\text{EP}}$ Act states that waste disposal sites used for the final disposal of liquid industrial or hazardous wastes require mandatory hearings. Since the facilities addressed by this policy are not engaged in the final disposal of wastes, hearings are discretionary as outlined in Section 32 of the $\overline{\text{EPA}}$. The discretion is to be exercised as indicated below.

6.1 New Facilities and Carriers

For new facilities and carriers (those not established as of September 17, 1985), the policy "Guidelines for Hearings on Waste Disposal Sites" (No. 14-01-01) as amended should be followed to determine whether a hearing should be held.

6.2 Existing Facilities and Carriers

The primary purpose of having a hearing is to examine the acceptability of a facility at a particular location. Since the facilities covered by this policy are already in operation, hearings will not normally be required.



POLICY TITLE

APPROVAL OF WASTE MANAGEMENT SYSTEMS FOR DUST SUPPRESSION

NO

14-11-01

Legislative Authority

Part V, Environmental Protection Act and Regulation 309

Statement of Principles

This policy provides for the review, certification and operation of carriers applying dust suppressants. Ministry of Environment approval for these carriers is required by the amendments to Regulation 309 and Section 27 of the Environmental Protection Act.

DEFINITIONS

- (a) Dust Suppressant means a waste used for dust suppression in accordance with a Certificate of Approval or Provisional Certificate of Approval for a dust suppression waste management system.
- (b) Dust Suppression Site means a waste disposal site where dust suppressant is deposited.

May 1, 1986

Point of Contact

Director, Waste Management Branch

Effective Date

April 25, 1986

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1. Policy Objective

The objective of this policy is to phase-in the approval of carriers that use wastes as dust suppressants. Prior to the 1985 amendments to Regulation 309, these operations did not require certification.

2. Application

2.1 <u>Previous</u> Definition

The previous definition of Liquid Industrial Waste in Regulation 313 included an exemption for wastes wholly reused or recycled. Dust suppressants were considered to be wastes wholly reused and, as a result, were included in this exemption.

2.2 Current Definition

Based on the explicit definitions of Dust Suppressant and Dust Suppression Site provided by the amendments to Regulation 309, dust suppressants will not be exempt. As a result, carriers applying these wastes will now require certification under Part V. Sites receiving dust suppressants are exempt from certification requirements provided that the site and wastes are identified in the carriers Certificate of Approval.

3. Regional Assessment

3.1 Review of Carriers

Carriers handling wastes for use as dust suppressants that were previously exempt from certification must make an application for a Certificate of Approval. This Certificate of Approval, if issued, will identify the classes of wastes to be used as well as the allowable dust suppression sites. Dust suppression sites mentioned in the above Certificate of Approval for a waste management system, however, do not require Certificates of Approval for waste disposal sites.

3.2 Timing of Applications for Certificates of Approval

- (a) Applications for Certificates of Approval for existing systems should be received by the Ministry by September 17, 1986. Applications received after that date will be treated as applications for new systems and the policy "Guidelines for Hearings on Waste Disposal Sites" (No. 14-01) should be followed in addressing them.
- (b) An existing system is one which was established prior to the effective date of Regulation 309 (September 17, 1985). If no application by an existing system is received by the Ministry by September 17, 1986, then the system will be in violation of Part V of the Environmental Protection Act.
- 4. Applications for Certificates of Approval

If regional assessment of a system identifies problems, the Certificate of Approval should be issued with conditions to correct problems and gain compliance. In those cases where compliance cannot be achieved through conditions, the application should be denied.

5. Information Required for Applications for Waste Management System Certificates of Approval

The following general information should be required for the review and issuance of a Certificate of Approval for a waste management system:

- liability insurance for \$1,000,000;
- number and types of vehicles;
- vehicle licence plate and registration numbers;
- list of waste classes to be transported;
- analytical data on these wastes;
- sources of waste (generic or specific);
- list of receivers (dust suppression sites) to be used;

- areas of service (such as counties of Ontario, Michigan, etc.) where wastes will be obtained;
- company registration information;
- company operational procedures;
- company driver training programs.

Additional detailed information may be required in specific cases.

6. Hearing Requirements

6.1 New Facilities and Carriers

Section 32 of the <u>EP Act</u> states that hearings for the approval of waste management systems are discretionary. For new operations, hearings will not normally be held unless there are significant environmental concerns that require open public discussion.

6.2 Existing Facilities and Carriers

Hearings will not normally be held for existing operations.



M.O.E. Policy Manual NO REDEVELOPMENT OF LANDFILL SITES CONTAINING POLICY TITLE SUBSTANTIAL QUANTITIES OF ASBESTOS WASTE 14-12-01 Legislative Authority the Environmental Protection Act Statement of Principles The objective of this policy is to provide a guide for Ministry staff, project proponents and the public on the subject of removal or management of asbestos wastes from sites during redevelopment for other purposes. Sites would include landfill sites where asbestos waste has been deposited, tailing disposal areas containing asbestos and industrial or other sites where asbestos is present. The policy should be used in conjunction with Regulation 309, the Environmental Protection Act, MOE Guidelines for Handling, Transportation and Disposal of Asbestos Waste in Bulk, and the Occupational Health and Safety Act administered by the Ministry of Labour. It is recognized that the policy is an addition to common sense, good judgement and past practical experience in the management of asbestos waste and that alternative, or modified techniques may be used where updated technology or experience allows, and where they are consistent with the overall intent of the policy and are acceptable to officials of the MOE.

Director, Waste Management Branch

MOE TA- C

August 12, 1986

Point of Contact

Effective Date

1. Introduction

There may be occasions when sites containing substantial quantities of asbestos waste will be redeveloped for other potential uses, and require excavation. Where possible, every effort should be made to allow that known deposits of asbestos waste remain untouched. However, in cases where it is necessary to disturb the deposits, the following procedures should be followed so that the asbestos can be removed, transported and disposed of elsewhere in a safe and proper manner.

Asbestos is hazardous when airborne, thus any excavation of buried asbestos waste must be undertaken with special care. This policy addresses administrative and procedural methods for the safe and proper redevelopment of asbestos disposal sites, based on the best information currently available.

The Ministry of the Environment considers that requirements for the redevelopment of sites containing asbestos should not be influenced by future land use intentions, but should be equally stringent for all planned uses.

2. Regulatory Requirements and Conditions

2.1 Ministry Approval

If the site to be redeveloped was used for the disposal of waste within the preceding twenty-five years, the proponent must seek approval from the Minister of the Environment in accordance with Section 45 of Part V of the Environmental Protection Act.

Prior to such approval being granted for any site containing asbestos, Ministry of the Environment staff will evaluate the proponent's proposal. Such conditions as deemed necessary by MOE staff will be applied to subsequent Ministerial approval.

2.2 Conditions for Approval

The following conditions will be applied to all approvals:

(a) The Ministry of Labour, the Municipality, and the Medical Officer of Health will be informed of the project by Ministry Regional staff.

- (b) The asbestos waste will be excavated and moved in accordance with Ontario Regulation 309, and the Occupational Health and Safety Act, particularly Ontario Regulation 570/82.
- (c) The waste removed shall be deposited in an approved disposal site in accordance with Regulation 309, and recorded on the site plan of the new site.
- (d) Monitoring and analyses of collected samples shall be conducted in a manner satisfactory to MOE staff.
- (e) Transportation to, and reception of the excavated asbestos waste at a landfill site, shall be conducted under that site's Certificate of Approval.

3. Operational Procedures:

3.1 Preparation for Redevelopment of Sites Containing Asbestos

The proponent for the redevelopment of a site containing asbestos should retain a recognized consultant who is experienced in earth-moving operations and in the handling of asbestos material or waste. The consultant will have an understanding of all current regulations regarding asbestos and of the analytical procedures and equipment used in the monitoring of asbestos air emissions. The consultant should supervise all aspects of the redevelopment project.

3.2 Determination of Asbestos Quantity

The presence and location of asbestos deposits in a site must be determined, as far as possible, by a search of the site deed, from MOE records of abandoned and active waste disposal sites, and from the site owner/operator or other sources deemed appropriate.

As past site records may not be precise, the proponent's consultant shall determine the quantity of asbestos to be removed by drilling a grid pattern of boreholes using appropriate safety procedures and analyzing the samples for asbestos in the area of the site identified by records or other means as containing asbestos.

Excavation of the asbestos area must include the removal of approximately one (1) foot of soil proved to be asbestos—free in all directions surrounding the asbestos deposit. The total excavation quantity will then include both the asbestos deposit and surrounding earth as defined above.

3.3 Dust Suppression

Earth and waste asbestos at the points of excavation and disposal should be pre-wetted and kept in an appropriately wet condition by water sprays during all phases of the operations to eliminate visible dust emissions. Care should be taken not to cause run-offs. If water sprays are manual in operation, provision to maintain wetting when work is not in progress (e.g., overnight) can be made by installation of irrigation type sprinklers to be run either full-time or cycled automatically by timed electrical control of a pump or valve.

All roadways and tracks on the reclamation site should be kept wet during the excavation operations. Acceptable commercially available dust suppressants may be used on roadways; the type, application rate, etc., to be commensurate with the aim of eliminating visible dust emissions.

Prior to leaving the reclamation site, vehicles loaded with asbestos waste must be cleaned. At minimum, this should consist of a thorough hosing.

3.4 Packaging of Waste

Excavated asbestos waste will be properly packaged for transportation in accordance with the provisions of Section 14, paragraphs 1, 2, 3 and 4 of Regulation 309. Vehicles used for transporting the waste will be placarded and identified in accordance with Section 14, paragraph 5 of the Regulation, or any other applicable federal and provincial transportation regulations.

3.5 Site Security

Sites in the process of redevelopment should be provided with both passive and active security if left unattended overnight. Signs denoting the danger of the sites should be installed on such occasions. In addition, security personnel should frequently monitor the sites to eliminate intentional or unintentional trespassing. Asbestos excavation locations will be completely encircled by snow fence or equivalent when unattended.

If sites are to be left unattended for longer periods, the asbestos excavation location should be covered with uncontaminated soil or such other material deemed appropriate to prevent migration of asbestos fibres from the location.

3.6 Personnel Safety

All personnel working on the operations will be protected by the use of respirators and clothing as necessary or as directed by the consultant or Ministry of Labour staff. The requirements of the Occupational Health and Safety Act and its regulations will be adhered to by all personnel involved in the operations.

3.7 Air Monitoring

Monitoring of ambient air and personnel exposure levels will be conducted at both the excavation and disposal sites throughout the entire operations.

3.7.1 Personnel Monitoring

Airborne fibre samples will be taken using a sample pump worn by the person and a cellulose-ester (millipore) filter, or other such equipment as currently prescribed in the Occupational Health and Safety Act, Ontario Regulation 570/82. All workers immediately exposed to the asbestos waste removal and disposal operations will be equipped with the sampling devices.

The filters will be analyzed on site by an analyst employed by the proponent, or by his consultant, using phase contrast optical microscopy techniques. The criteria used in evaluating the analytical results will be those prescribed by Ontario Regulation 570/82. The results will be made available to the MOL on request.

3.7.2 Ambient Air Monitoring

Ambient air at the worksite will be monitored as per standard MOE procedures, and the results evaluated against the MOE primary criteria for ambient air of 0.04 asbestos fibres of length greater than 5 um. per cc of air.

- a) In addition, samples will be taken around the fence perimeter of the site(s). The number of samples will be determined by the consultant and reviewed by MOE personnel. Results will be evaluated in accordance with the above MOE primary guideline for asbestos in ambient air.
- b) Should visible emissions occur on site, remedial measures must be taken. The consultant should maintain a log of such events to include time, duration, location, probable cause and remedial measures applied. Copies of the log will be made available to the MOE. The log data will be reviewed and compared with pertinent asbestos analytical data to ascertain if a relationship between the visible emission and asbestos fibre counts exists.
- c) All analytical results will be forwarded to the MOE Regional Director as soon as possible.
- d) Post redevelopment air monitoring of the excavation site should be conducted in a manner and frequency as determined by the MOE Regional Director.



POLICY TITLE

HANDLING AND DISPOSAL OF SELECTED LIQUID WASTES FROM RETAIL MOTOR VEHICLE SERVICING FACILITIES

NO

14-13-01

Legislative Authority

Regulation 309
Part V, Environmental Protection Act

Statement of Principles

This policy describes the recommended handling procedures for selected liquid wastes from retail motor vehicle servicing facilities. Additional detail may be found in the "Guideline for the Handling and Disposal of Selected Liquid Wastes from Retail Motor Vehicle Servicing Facilities".

<u>Definitions</u>

Retail Motor Vehicle Servicing Facility means retail gasoline service stations, retail automotive repair garages, retail car washes and retail service centres at automobile dealerships. This includes service centres for:

- mufflers,
- brakes,
- body repair,
- undercoating,
- snowmobiles, and
- pleasure boats.

Point of Contact

Director, Waste Management Branch

Effective Date

August 12, 1986

1. Policy Objective

The recent amendments to Regulation 309 exempt retail automobile service stations from the requirement to manifest and register their wastes, provided they have a current written agreement for the collection and management of their wastes with a carrier approved under Part V of the Environmental Protection Act. This policy and the associated Guideline provide recommendations for handling and disposal practices for selected service station (servicing facility) wastes.

2. Application

The Guideline is intended to be used by service station operators. In addition, it is to be used by staff from the Regional Operations Division in reviewing the waste management practices at service stations.

3. Guideline for the Handling and Disposal of Selected Liquid Wastes from Retail Motor Vehicle Servicing Facilities

The Guideline provides recommended handling and disposal practices for the following wastes from retail motor vehicle servicing facilities:

- (1) used lubricating oil;
- (2) interceptor wastes;
- (3) water pump-out from underground gasoline storage tanks; and
- (4) waste batteries.

Major components of the Guideline are summarized below.

3.1 <u>Used Lubricating</u> <u>Oil</u>

The Guideline outlines recommended practices for used lubricating oil. They include the following:

- used oil generated at the station must be stored in a tank used exclusively for that purpose; and
- (2) the operator should arrange for pick-up of used oil as necessary with a used oil carrier approved by the Ontario Ministry of the Environment.

Routine inspection requirement, management criteria and servicing procedures are outlined in the Guideline.

3.2 Interceptor Waste

Routine inspection of the service station interceptor should be undertaken at least once every three months.

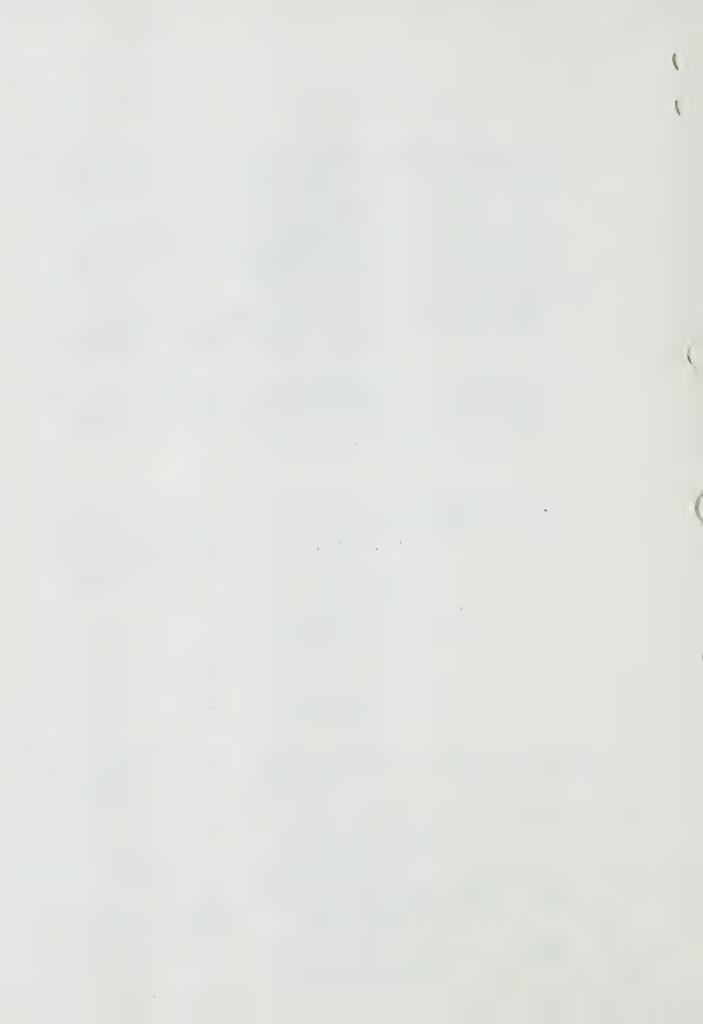
Clean-out should be performed only by a carrier approved by the Ontario Ministry of the Environment, and the interval between clean-outs should never exceed 12 months.

3.3 Water Pump-out from Underground Gasoline Storage Tanks

The Guideline indicates that underground gasoline storage tanks must be dipped daily for water content. Water must be pumped out when the depth is greater than 5 cm.

3.4 Waste Batteries

Waste batteries must be disposed of at a waste battery reclaiming facility approved by MOE.



GUIDELINE FOR THE HANDLING AND DISPOSAL

OF

SELECTED LIQUID WASTES

FROM

RETAIL MOTOR VEHICLE SERVICING FACILITIES

AUGUST, 1986

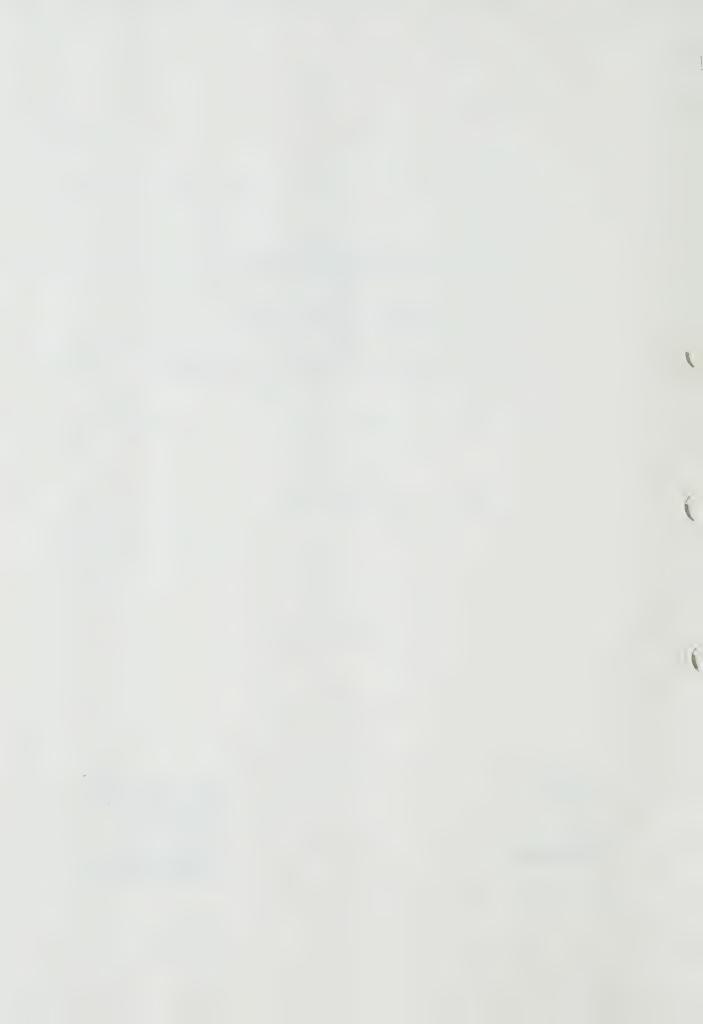
MINISTRY

OF THE

ENVIRONMENT

THE HONOURABLE JIM BRADLEY MINISTER

R. M. McLEOD DEPUTY MINISTER



GUIDELINE FOR THE HANDLING AND DISPOSAL OF SELECTED LIQUID WASTES FROM RETAIL MOTOR VEHICLE SERVICING FACILITIES

INTRODUCTION

This guideline has been prepared in cooperation with the Ontario Petroleum Association (OPA) and Automotive Afteruse Retailers of Ontario (AARO) to promote the proper management of liquid wastes generated from retail motor vehicle servicing facilities (including retail gasoline service stations, retail automotive repair garages, retail car washes, and retail service centres at automobile dealerships).

The guideline includes recommended operating practices for facilities at service stations (servicing facilities) from which these liquids are removed for disposal. It also stresses the need to ensure proper waste disposal by using carriers and disposal facilities approved by the Ontario Ministry of the Environment (MOE).

The service station operator has a responsibility to ensure that his wastes are handled and disposed of with proper care. In order to be exempt from manifest and registration requirements, the service station operator must have a current written agreement for the collection and management of his wastes with a carrier approved under Part V of the Environmental Protection Act for the operation of a waste management system. Failure to have such an agreement would result in the loss of this exemption, leading to requirements for generator registration and the use of manifests for these wastes. The service station operator

<u>must</u> at all times have this agreement available for inspection by an Ontario Ministry of the Environment inspector.

The agreement between the service station and the carrier must include the following information:

Service Station

- service station name
- company affiliation, if applicable
- site location full address
- full mailing address, if it differs from the site location
- operator's full name

Carrier

- carrier's name
- full address
- waste management system Certificate of Approval number
- name of primary contact person

Other information

- length of time agreement in effect
- wastes covered by agreement
- minimum time intervals between pick-ups to match those in this guideline
- intended receiver of waste(s), including full site address and Certificate of Approval number.

RECOMMENDED PRACTICES FOR USED LUBRICATING OIL

- 1. All used oil generated at the station must be stored in a tank specifically designed and used exclusively for that purpose. Disposal of non-petroleum products into the used oil storage tank is not an acceptable practice.
- The used oil storage tank should be tightly and securely capped and water content minimized.
- 3. The service station operator should arrange for pickup of used oil as necessary with a used oil carrier approved by the Ontario Ministry of the Environment.
- 4. The service station operator is responsible for ensuring that the used oil is sent to a waste management facility approved by the Ontario Ministry of the Environment to accept this class of waste. As a general practice, the Ministry and the petroleum industry encourage operators to send used oil from service stations to re-refining facilities for the protection of the environment and conservation of resources.
- 5. Used oil must not be used in combustion systems unless specific approval to do so is given by the Ontario Ministry of the Environment under Section 8 of the Environmental Protection Act.
- 6. The operator must prevent the entry of oil into sewer systems, drains and the natural environment.
- 7. Spills or other discharges to the environment must be reported immediately to the Ministry of the Environment, to the municipality, and, where appropriate, to the service station operator's company affiliate.

SERVICE STATION INTERCEPTORS

Service stations are normally equipped with interceptors (oil-water separators). Interceptors receive all service bay drainage and retain the oily (hydrocarbon) wastes and solids. This is a gravity separation system with oil and grease (hydrocarbons) rising, and solids settling as a sludge. Oily water (effluent) passes through several compartments, repeating the oil/water separation process. The water phase ultimately passes to municipal sanitary sewers or to a septic system in a rural setting. Discharge of water from the interceptor to an open ditch, ground or waterway requires prior approval under Section 24 of the Ontario Water Resources Act. Properly designed and maintained, interceptors can provide up to 98% removal of oil and solids from the original mixture.

Routine Inspection:

Routine inspection can vary with the amount and type of service bay activity but should be undertaken at least once every three months. The following procedures are recommended:

- Measure the amount of accumulated oil and solids in the first compartment to determine if a clean-out is required.
- 2. Inspect the last compartment to ensure that the water being directed to municipal sewers does not contain solids or oils and greases (hydrocarbons).

Management Criteria:

- Servicing and clean-out of the separator is required when the oil collected reaches a level of 10 cm (4 in.) or if the solids at the bottom reach a depth of 30 cm (12 in.).
- 2. Servicing is also required promptly following any spill that results in a significant quantity of contaminants entering the interceptor.
- 3. The interval between interceptor clean-outs should never exceed 12 months, regardless of the amounts of oil or solids collected.

Recommended Servicing Procedures:

- Clean-out should be carried out by an Ontario Ministry of the Environment approved carrier using a power vacuum unit.
- 2. Clean-out is accomplished by applying suction near the top of the oil layer in the first compartment until it is completely removed, then proceeding directly to the sludge layer and removing same.
- 3. The intermediate water layer is left (or should be replaced) to act as a seal.
- 4. The other chamber(s) should also be checked to ensure no significant quantity of oil or sludge is present.
- 5. The interceptor should be inspected by the operator immediately after servicing to ensure that it has been properly cleaned and that the water level has been restored for operation.

6. The service station operator is responsible for ensuring that the waste - both oil and solids - which is removed from his interceptor, is taken to a waste management facility approved by the Ministry to handle this class of wastes. Such facilities would include, but are not limited to, waste oil processors/ recyclers, waste transfer stations and sewage treatment plants. Operators should ensure that wastes taken to sewage treatment plants comply with all municipal sewer use by-laws.

Recommended Operating Procedures:

- Compartment covers must be tightly sealed to ensure that all floor drainage is directed to the first compartment.
- Water must be maintained at normal operating levels to retain the seal and prevent oil from leaving the first compartment.
- 3. No changes can be made to the piping or baffles in the interceptor except as approved by the manufacturer or a design engineer.
- 4. No gasoline, gasoline contaminated products or cleaning solvents should be intentionally sent to the interceptor.

Records:

Records must be kept on the particulars and dates of inspections, clean outs and spills.

WATER PUMP OUT FROM UNDERGROUND GASOLINE STORAGE TANKS

The Ontario Gasoline Handling Act requires that service station operators dip their underground product storage tanks for accumulated water content on a daily basis.

The presence of water in a tank can occur from

- condensation of water vapour
- surface water run-off entering the fill-pipe

Operator Requirements:

- Service Station operators must dip all underground storage tanks for water on a daily basis.
- 2. If water is detected in any underground tank to a depth of 5 cm or more, the operator should contact his supplying company and report water content.
- 3. The services of an approved petroleum equipment maintenance contractor should be engaged to pump out the water contaminant.
- 4. Small quantities of contaminated water (up to 100 litres) may be placed in the used-oil storage tank. This practice should be minimized in keeping with the recommendations for used oil and to minimize the potential for flashing as a result of excessive gasoline content in the used oil storage tank.
- 5. Quantities in excess of 100 litres will be collected in tanks or drums and transported to a marketing terminal or refinery for treatment in a gravity separator followed by a conventional secondary biological treatment plant.

- 6. In the event that a terminal or refinery facility does not exist in the area, contaminated water must be taken to an approved waste management facility such as a sewage treatment plant for treatment or destruction. The service station operator is responsible for ensuring that the chosen waste management facility has the necessary Certificate of Approval enabling it to handle this class of waste and that the facility has agreed to accept the waste.
- 7. Contaminated water from underground storage tanks must NOT be discharged into the station oil-water interceptor, nor to the storm sewer. The contaminated water may not be sent to a sanitary sewer unless it meets the specifications in the municipal sewer use by-laws and any other applicable municipal requirements.
- 8. It is a primary requirement that service station operators will maintain the fill-box and fill-cap on all underground storage tanks to minimize water contamination from surface run-off.

RECOMMENDED PRACTICE FOR THE DISPOSAL OF WASTE BATTERIES

The following practices are recommended for the disposal of waste batteries:

- (1) Waste batteries must be handled by a waste battery reclaiming facility approved by Ontario Ministry of the Environment.
- (2) Precautions should be taken to ensure that leakage does not occur from batteries that are stored on site pending disposal. Storage areas should be curbed or otherwise designed to retain any acid that may leak.

GUIDELINE FOR THE HANDLING AND DISPOSAL OF SELECTED LIQUID WASTES FROM RETAIL MOTOR VEHICLE SERVICING FACILITIES

(Abbreviated Version)

AUGUST, 1986

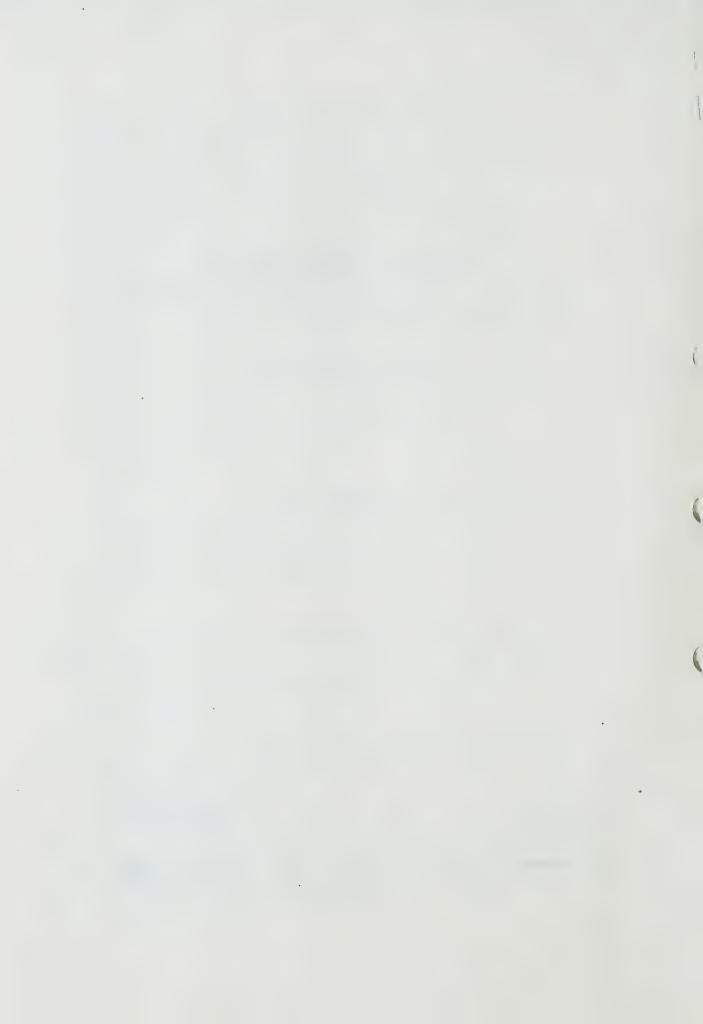
MINISTRY

OF THE

ENVIRONMENT

THE HONOURABLE JIM BRADLEY MINISTER

R. M. McLEOD DEPUTY MINISTER



GUIDELINE FOR THE HANDLING AND DISPOSAL OF SELECTED LIQUID WASTES FROM RETAIL MOTOR VEHICLE SERVICING FACILITIES

INTRODUCTION

This guideline has been prepared in co-operation with the Ontario Petroleum Association and the Automotive Aftermarket Retailer of Ontario to promote the proper management of liquid wastes generated from the servicing of motor vehicles at retail motor vehicle servicing facilities (including retail gasoline service stations, retail automotive repair garages, retail car washes, and retail service centres).

The service station (servicing facility) operator has a responsibility to ensure that his wastes are handled and disposed of with proper care. In order to be exempt from manifest and registration requirements, the service station operator must have a current written agreement for the collection and management of his wastes with a carrier approved under Part V of the Environmental Protection Act for the operation of a waste management system. Details of the content of this agreement can be found in the full text of this Guideline, which is available from the Waste Management Branch or any Regional Office of the Ontario Ministry of the Environment. The service station operator must at all times have this agreement available for inspection by an Ontario Ministry of the Environment inspector.

RECOMMENDED PRACTICES FOR USED LUBRICATING OIL

- All used oil generated at the station must be stored in a tank used exclusively for that purpose.
- 2. The used oil storage tank should be tightly and securely capped and water content minimized. Disposal of non-petroleum products into the used oil storage tank is not an acceptable practice.
- 3. The service station operator should arrange for pickup of used oil as necessary with a used oil carrier approved by the Ontario Ministry of the Environment.
- 4. The service station operator must ensure that the used oil is sent to a facility approved to accept this class of waste. In general, it is encouraged that used oil be sent to re-refining facilities.
- 5. Used oil should not be used in combustion systems unless specific approval to do so is given by the Ontario Ministry of the Environment.
- 6. The operator must prevent the entry of used oils into sewer systems, drains and the natural environment.
- 7. Spills or other discharges to the environment must be reported immediately to the Ministry of the Environment, to the municipality, and to the operator's company affiliate.

SERVICE STATION INTERCEPTORS

Service station interceptors are designed to receive all service bay drainage and retain the majority of the oily wastes and solids. The water phase ultimately passes to municipal sanitary sewers or to a septic system in a rural setting.

Routine Inspection:

Routine inspection should be undertaken at least once every three months. The following procedures are recommended:

- Measure the amount of accumulated oil and solids in the first compartment to determine if a clean-out is required.
- Inspect the last compartment to ensure that the water being discharged does not contain solids or oils and greases.

Management Criteria:

- 1. Servicing and clean-out of the separator is required when the oil reaches a level of 10 cm (4 in.) or if the solids reaches a depth of 30 cm (12 in.).
- Servicing is also required promptly following any spill or other unusual condition resulting in a significant quantity of contaminants entering the interceptor.
- 3. The interval between interceptor clean-outs should never exceed 12 months.

Recommended Servicing Procedures:

- Clean-out should be carried out by an Ontario Ministry of the Environment approved carrier using a power vacuum unit.
- 2. The oil layer at the top and the sludge layer of the first compartment are to be removed by suction.
- 3. The intermediate water layer is left or replaced to act as a seal and prevent oil from leaving the first compartment.
- 4. The other chamber(s) should also be checked to ensure no significant quantity of oil or sludge is present.
- 5. The interceptor should be inspected by the operator immediately after servicing to ensure that it has been properly cleaned and that the water level has been restored.
- 6. The service station operator is responsible for ensuring that the waste which is removed from his interceptor is taken to a waste management facility approved by the Ministry to handle this class of wastes.

Recommended Operating Procedures:

- Compartment covers must be tightly sealed to ensure that all floor drainage is directed to the first compartment.
- No changes can be made to the piping or baffles in the interceptor except as approved by the manufacturer or a design engineer.

 No gasoline, gasoline contaminated products or cleaning solvents should be intentionally sent to the interceptor.

Records:

 Records must be kept on the particulars and dates of inspections, clean outs and spills.

WATER PUMP OUT FROM UNDERGROUND GASOLINE STORAGE TANKS

Operator Requirements:

- Service Station operators must dip all underground storage tanks for water on a daily basis.
- 2. If water is detected in any underground tank to a depth of 5 cm or more, the operator should contact his supplying company and report water content.
- 3. The services of an approved petroleum equipment maintenance contractor should be engaged to pump out the water contaminant.
- 4. Contaminated water will be collected in tanks or drums and transported to a waste management facility which has the necessary Certificate of Approval enabling it to handle this class of waste, and which has agreed to accept the waste. Such facilities include: marketing terminals, refineries or sewage treatment plants.
- 5. Contaminated water from underground storage tanks must NOT be discharged into the station oil-water interceptor, nor to the storm sewer.

6. The service station operators must maintain the fill-box and fill-cap on all underground storage tanks to minimize water contamination from surface run-off.

RECOMMENDED PRACTICE FOR THE DISPOSAL OF WASTE BATTERIES

The following practices are recommended for the disposal of waste batteries:

- (1) Waste batteries must be handled by a waste battery reclaiming facility approved by the Ontario Ministry of the Environment.
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M.O.E. Policy Manual

POLICY TITLE

DRIVER TRAINING FOR LIQUID INDUSTRIAL AND HAZARDOUS WASTE TRANSPORTATION VEHICLES

NO

14-14-01

Legislative Authority

Regulation 309
Part V, Environmental Protection Act

Statement of Principles

This policy outlines the essential components of training programs for drivers of liquid industrial and hazardous waste vehicles. Additional detail may be found in the "Driver Training Guideline: An Outline of the Essential Components of Training Programs for Drivers of Liquid Industrial and Hazardous Waste Transportation Vehicles".

Definition

Driver Training Program

means a training program designed specifically for drivers of vehicles used for the transportation of liquid industrial or hazardous wastes.

Point of Contact

Director, Waste Management Branch

Effective Date

August 19, 1986

1. Objective

The recent amendments to Regulation 309 establish major new responsibilities for carriers with respect to driver training. This policy and the associated Guideline provide an outline of the essential components of training programs for drivers of vehicles used for the transportation of liquid industrial or hazardous wastes.

2. Application

- 2.1 Application Outside the Ministry of the Environment
- The Guideline is intended to be used by operators of waste management systems in designing their driver training programs or in evaluating driver training programs offered by outside training organizations.
- 2.2 Application Within the Ministry of the Environment

The Guideline is to be used by staff of the Regional Operations Division in evaluating applications for new or revised waste management system Certificates of Approval.

3. Waste Management System
Certificates of
Approval

The driver training program requirement is to be encompassed in all waste management system Certificates of Approval for the transportation of liquid industrial or hazardous wastes, as follows:

3.1 Applications for Certificates of Approval An application for a Certificate of Approval must include:

- (a) written confirmation that the operator has a driver training program in place which addresses the five items contained in the Guideline, in accordance with Regulation 309;
- (b) a list of trained drivers employed by the applicant at the time of application.

3.2 Conditions included on Certificate of Approval

Conditions related to driver training will be included on the Certificate of Approval, a copy of which must be kept in the vehicle at all times.

The conditions will apply the following requirements:

- (i) every driver must carry a copy of his/her Certificate of Training at all times when operating or in any way tending a waste transportation vehicle;
- (ii) an individual who has not successfully completed a driver training program is prohibited from operating or in any way tending a waste transportation vehicle except as part of an approved training program in the course of which he/she must be under the direct supervision of a trained driver at all times.
- (iii) a Waste Management System operator must maintain, at the operator's place of business, a list of the trained drivers in his/her employ, and must make such list available for Ministry inspection upon request.
- 4. Driver Training
 Guideline: An Outline
 of the Essential
 Components of Training
 Programs for Drivers of
 Liquid Industrial and
 Hazardous Waste
 transportation Vehicles

This Guideline provides an outline of the essential components of training programs for drivers of vehicles used for the transportation of liquid industrial or hazardous wastes. The five areas of training are:

- (i) the operation of the vehicle and waste management equipment;
- (ii) relevant waste management legislation, regulations and guidelines;
- (iii)major environmental concerns for the waste to be handled;
- (iv) occupational health and safety concerns for the waste to be handled; and
- (v) emergency management procedures.

Upon completion of the training program, the driver must be able to demonstrate complete familiarity in the areas identified in the Guideline. The major components of the areas of training outlined in the Guideline are summarized below:

- 4.1 The Operation of the Vehicle and Waste Management Equipment
- (i) the location, function and operation of <u>all</u> controls for waste management <u>equipment</u>;
- (ii) proper loading and unloading procedures for various common types of wastes.
- 4.2 Relevant Legislation
- (i) provisions under the Environmental Protection Act such as approvals requirements and penalties;
- (ii) Regulation 309 requirements;
- (iii)other applicable legislation.
- 4.3 <u>Major Environmental</u> <u>Concerns</u>
- (i) physical properties of wastes which affect their hazard and disposal options;
- (ii) compatabilities and associated problems among different types of wastes; and of wastes with different types of containers.
- 4.4 Occupational Health and Safety Concerns
- (i) relationship between a waste's characteristics and the degree and the nature of the damage that could result from direct bodily contact;
- (ii) the function, location, and use of safety equipment carried in the unit.
- 4.5 Emergency Management Procedures
- (i) emergency procedures for handling wastes;
- (ii) initial response required from the driver in the event of an accident and/or spill;
- (iii)telephone number of the Spills Action Centre: 1-800-268-6060.



M.O.E. Policy Manual

POLICY TITLE

ENGINEERED FACILITIES AT LANDFILLS THAT RECEIVE MUNICIPAL AND NON-HAZARDOUS WASTES

NO

14-15-01

Legislative Authority

the Environmental Protection Act

Statement of Principles

In order to protect the environment and human health, the Ministry will review and evaluate applications for new landfills and landfill expansions in accordance with the following position statement:

An engineered facility must function as long as necessary for the protection of the environment.

If periodic or continuous maintenance or replacement is required, evidence must be provided by the applicant that this can and will be accomplished.

This policy is written in accordance with the Ministry's current policy 15-08 entitled "Incorporation of the Reasonable Use Concept into MOE Groundwater Management Activities".

Definitions

Contaminating Life Span

Contaminating Life Span is defined as the period of time during which the landfill will produce contaminants at levels that could have unacceptable impact if they were discharged into the surrounding environment.

Point of Contact

Director, Waste Management Branch

Effective Date

May 11, 1988

1.0 Scope

This policy applies to applicants for new or expanded landfill sites which receive municipal and non-hazardous wastes and to Ministry staff responsible for the review and evaluation of such proposals.

2.0 MOE Responsibility

The Ministry will review and evaluate all applications for new and expanded landfill sites in accordance with the covering statement of principles and the Ministry's governing Guideline document (noted below).

3.0 Applicant's Responsibility

The applicant will be responsible for providing Ministry staff with sufficient evidence to adequately review and evaluate his/her proposal.

3.1 Service Life

It is the applicant's responsibility to define the service life of an engineered facility and indicate the frequency of replacement and the number of times it must be replaced.

3.2 Contaminating Life Span

In doing so, the applicant must address the contaminating life span of the landfill, equate this with the proposed service life of the engineered facility and support any procedures he/she intends to use ensure that the service life of the facility exceeds the contaminating life span of the landfill.

4.0 Further Guidance

Further guidance with respect to the use of landfill liners, leachate collection and treatment facilities, landfill covers and rapid stabilization and leachate recycling is provided in the Ministry's "Guideline on Engineered Facilities at Landfills that Receive Municipal and Non-Hazardous Wastes" dated March 1988.

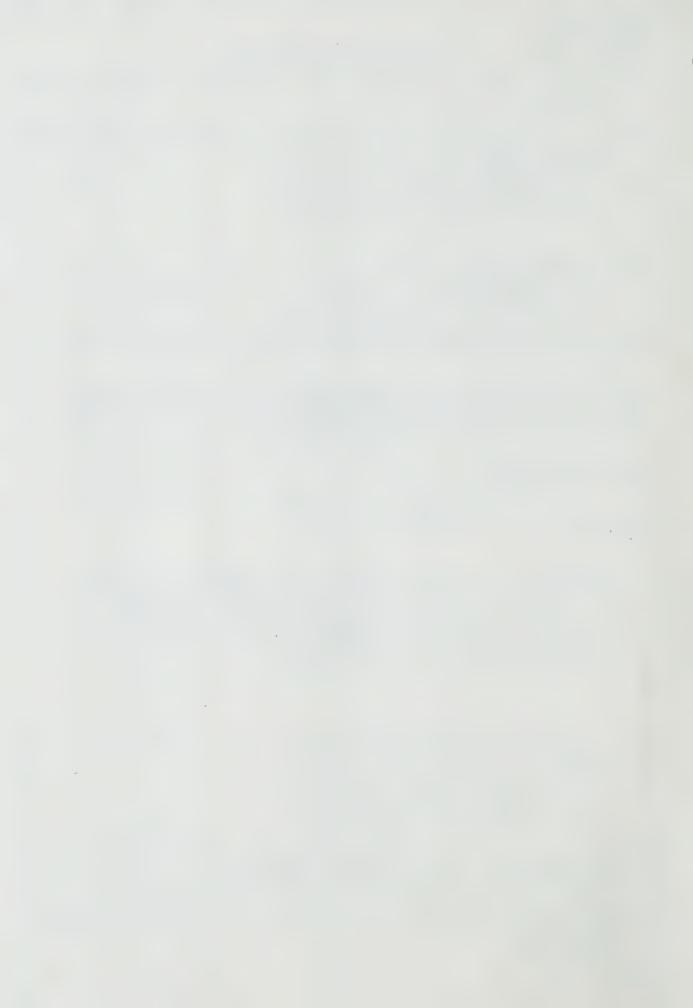
Copies of the above noted document can be obtained from the Ministry's Waste Management Branch



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M.O.E. Policy Manual

Ontano		
POLICY TITLE WASTE DIL		NO 14-16-01
Legislative Authority		
the Environmental Protection Act		
Statement of Principles		
As a means of reducing the potential for environmental contamination, it is the Ministry's policy to prevent the application of waste oil as a dust suppressant in Ontario.		
Certificates of Approval and Provisional Certificates of Approval authorizing the use of waste oil as a dust suppressant will no longer be issued. Existing Certificates of Approval and Provisional Certificates of Approval for such activities will be revoked effective December 31, 1988.		
The Ministry will be reviewing any changes which might be made to regulations to support this policy.		
Definition		
r w e	Waste oil is defined as any oil no longer required for its intended use. Such oils would include crankcase, hydraulic, electrical and emulsified oil or mixtures of such oils and any other materials.	
Point of Contact Director, Waste Management Branch		
Effective Date		
August 11, 1988		





M.O.E. Policy Manual

POLICY TITLE GUIDELINES FOR THE DECOMMISSIONING AND CLEAN-UP OF SITES IN ONTARIO

NO

14-17-01

Legislative Authority

the Environmental Protection Act the Environmental Assessment Act the Ontario Water Resources Act

Statement of Principles

This Policy and its associated Guideline document define procedures for the management of the environmental aspects of facility decommissioning and site clean-up. A framework is established to provide a consistent decision-making process at all sites. In principle, remedial action will be required where on-site contaminants are present at concentrations above background levels. Within this framework however, site-specific clean-up criteria above background levels can either be developed or adopted from other jurisdictions provided they are protective of human health and the environment. Flexibility is encouraged in actions taken at sites according to site-specific requirements.

Point of Contact Director, Waste Management Branch

Effective Date

December 28, 1988

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DEFINITIONS

"Decommissioning" means the mothballing, partial closure or complete closure of a facility.

"Clean-Up" means the restoration of a contaminated site to ensure the protection of human health and the environment.

"Remedial Action" means any action taken to mitigate actual or potential environmental hazards associated with the site.

"Criteria" mean contaminant thresholds below which the contaminants are deemed to no longer present a human health or environmental threat.

1.0 Purpose and Objectives:

This Policy and its associated Guidelines:

- (i) protect subsequent users and the public from environmental contaminants that would otherwise remain on the site;
- (ii) ensure that facility decommissioning and site clean-up are completed in an environmentally acceptable fashion.
- (iii)establish a framework to provide a consistent decision-making process at all sites to be decommissioned or cleaned-up;
- (iv) provide technical and policy guidance on the decommissioning and site clean-up process to MOE staff, proponents and the public;
- (v) ensure public involvement in the decommissioning and site clean-up process.

2.0 Application:

2.1 Application Outside the Ministry of the Environment

The Guidelines are intended to be used by decommissioning and site clean-up proponents as a means of ensuring that the Ministry's objectives are met.

2.2 Application Within the Ministry of the Environment

The Guidelines are to be used by Ministry staff to evaluate and guide the planning, design, implementation, verification and signing-off of decommissioning and site clean-up activity.

3.0 Guidelines for the Decommissioning and Clean-up of Sites in Ontario:

The process for decommissioning or cleaningup sites in Ontario has four general phases:

- (i) Planning the decommissioning or site clean-up (Phase I);
- (ii) Designing and implementing decommissioning or clean-up activities, including any remedial action that may be necessary (Phase II);
- (iii)Verifying that a decommissioning or site clean-up has been satisfactorily completed (Phase III);
- (iv) Signing off the decommissioning or site
 clean-up (Phase IV);

Points at which proponents should communicate with the Ministry of the Environment, other agencies, and the public are identified throughout the Guidelines.

3.1 <u>Legislative</u> Context

Environmental Protection Act Environmental Assessment Act Ontario Water Resources Act

Relevant legislation administered by the Ministry of the Environment is summarized in Appendix C of the Guidelines.

3.2 Phase I Activities

(i) The proponent may issue a statement of commitment that the decommissioning or site clean-up will be completed in an environmentally responsible fashion.

Decommissioning or site clean-up plans should be discussed with MOE staff to ensure Ministry concerns will be met.

(ii) A public consultation strategy should be developed, where appropriate. The proponent should undertake a preliminary inventory to broadly identify what contaminants are likely to exist at the site and the natural and socio-economic factors that may impact on required clean-up action. Procedures for establishing clean-up criteria are identified in the Guidelines.

3.3 Phase II Activities

The proponent should undertake a detailed sampling program to confirm or modify the data identified in Phase I. A decommissioning and/or remedial work plan should be developed and should be reviewed by MOE and the public prior to implementation. MOE may require financial assurance to be provided prior to implementing the work plan.

3.4 Phase III Activities

Following the decommissioning or site clean-up Ministry staff will verify that the decommissioning or site clean-up has met the objectives established through the decommissioning process and that any necessary on-going monitoring systems are in place. The completed decommissioning or site clean-up should be communicated to all relevant parties and the public.

3.5 <u>Phase IV</u> <u>Activities</u>

Unless all contaminants have been removed to background levels, the fact that there are residual contaminants on the property should be recorded on the title to the property so that future owners will be aware of the situation. One or more registerable documents may have been created as a result of the prior operations at the site or the clean-up activities. These can be used for purposes of recording information on title. Where title is recorded under the Registry Act and there are no appropriate registerable documents, an affidavit may be deposited on title setting out any remaining matters of concern. A report outlining the details of the decommissioning must be submitted to the Ministry and the appropriate municipal office.

4.0 Ministry Responsibilities

District Offices will undertake the lead role in liaising with decommissioning and site clean-up proponents. All MOE activities will be delivered through District Offices.

Waste Management Branch will provide technical and policy assistance to the District Offices.

Communications Branch will provide assistance in public communications and consultation.

Further details regarding these activities are provided in the Ministry's Guideline document entitled "Guidelines for the Decommissioning and Clean-up of Sites in Ontario". Guidelines may be obtained from the Ministry's Waste Management Branch.





M.O.E. Policy Manual

POLICY TITLE

HAZARDOUS WASTE CATEGORIZATION AND REVIEW

NO. 14-18-01

Legislative Authority

the Environmental Protection Act, Part V Regulation 309

Statement of Principles

Regulation 309 employs a testing/listing approach for the definition of hazardous wastes. In instances where testing is neither feasible (e.g., toxicity) nor necessary, wastes are classified by listing in schedules. Regulation 309 also allows for the categorization (listing) of additional wastes on the schedules, and the review (delisting) of specific non-hazardous wastes (on a site specific basis) from the schedules. The implementation of this process is by amendment to the Regulation.

Two Guidance Manuals have been prepared to explain the application requirements, and to outline the Ministry's evaluation procedures.

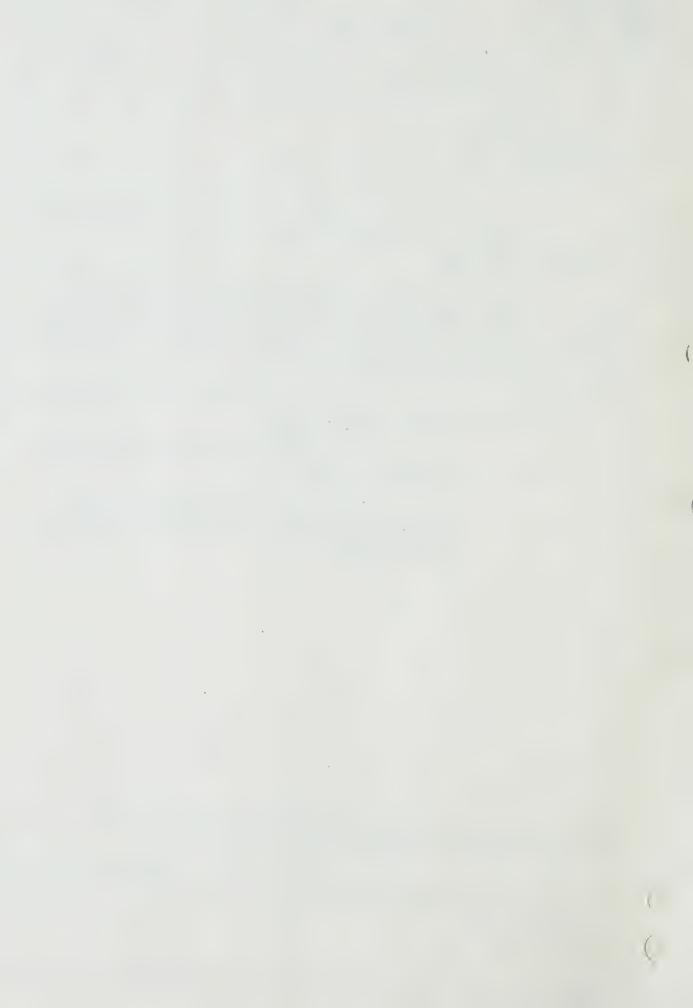
- 1. Objective The objective of the manuals is to ensure that wastes that could adversely affect the health and environment of Ontario are properly controlled.
- 2. Scope
 The Guidance Manuals outline the requirements for the categorization and review of applications, and provide direction to Ministry staff responsible for the evaluation of these applications.

Point of Contact

Director, Waste Management Branch

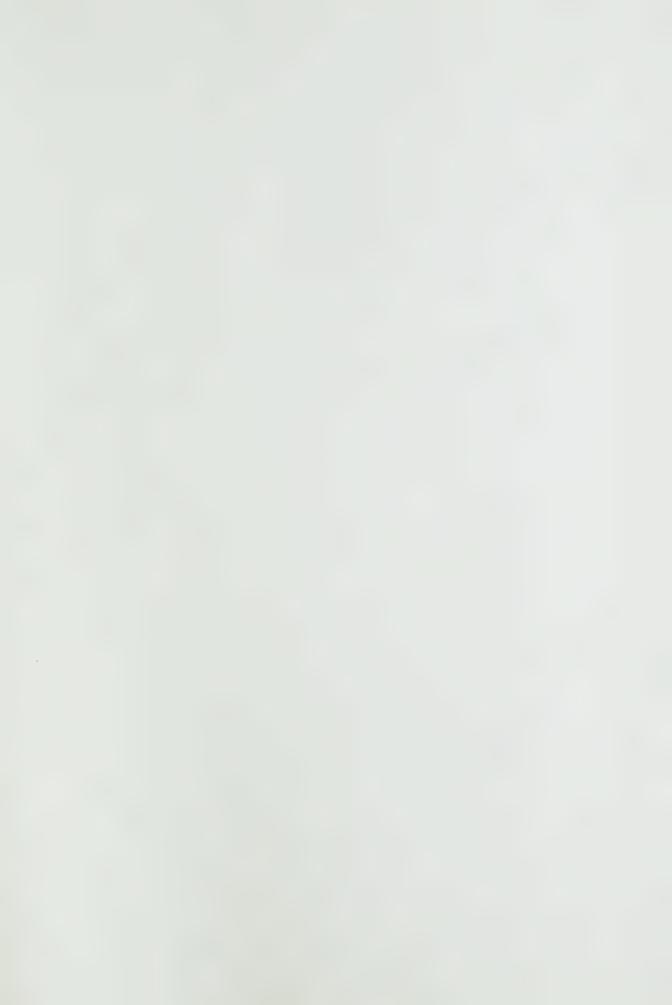
Effective Date

April 20, 1990













POLICY TITLE

WATER MANAGEMENT - GOALS, POLICIES, OBJECTIVES AND IMPLEMENTATION PROCEDURES OF THE MINISTRY OF THE ENVIRONMENT (REVISED MAY 1984)

NO

15-01-01

Legislative Authority

the Ontario Water Resources Act

Statement of Principles

To ensure the effective management of the Province's water resources, the following goals and policies contained in the publication Water Management - Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment, November 1978 (Revised May 1984) shall be adhered to. Reference should be made to that publication for additional details of the guidelines, procedures and tables referred to in the following.

SURFACE WATER QUALITY MANAGEMENT

GOAL

TO ENSURE THAT THE SURFACE WATERS OF THE PROVINCE ARE OF A QUALITY WHICH IS SATISFACTORY FOR AQUATIC LIFE AND RECREATION.

Water which meets the water quality criteria for aquatic life and recreation (designated as the Provincial Water Quality Objectives, Table 1), will be suitable for most other beneficial uses, such as drinking water and agriculture. For the few parameters, where better water quality is required to protect these other beneficial uses in a given location, the appropriate criteria shall be applied in that location.

August 22, 1986

Point of Contact

Director, Water Resources Branch

Effective Date

June 5, 1986

POLICIES

1. Areas with Water Quality Better than the Objectives

In areas which have water quality better than the Provincial Water Quality Objectives, water quality shall be maintained at or above the Objectives.

2. Areas with Water Quality Not Meeting the Objectives

Water quality which presently does not meet the Provincial Water Quality Objectives shall not be degraded further and all practical measures shall be taken to upgrade the water quality to the Objectives.

3. Effluent Requirements

Effluent requirement will be established on a case-by-case basis. In establishing effluent requirements, the characteristics of the receiving water body will be considered, as will Federal and Provincial effluent regulations and guidelines where applicable. The effluent requirements so derived will be incorporated into Certificates of Approval (under Section 24, Ontario Water Resources Act) and will specify both waste loadings and concentrations.

4. Hazardous Substances

Special preventive measures are required to deal with the release of known or potentially hazardous substances. Accordingly, the Ministry's policy is to:

- (i) prevent the release of those substances listed in Table 2 which are hazardous if released in any concentration:
- (ii) ensure that special measures are taken on a case-by-case basis to minimize the release of any substances for which Provincial Water Quality Objectives have not yet been established.

5. Mixing Zones

A mixing zone is defined as an area of water contiguous to a point source where the water quality does not comply with the Provincial Water Quality Objectives. Terms and conditions related to a mixing zone will be designated on a case-by-case basis and may be specified in Certificates of Approval, control orders, requirement and directions, or approvals to proceed under the Environmental Assessment Act. The size of the mixing zone shall be minimized to the greatest possible degree and under no circumstances is the mixing zone to be used as an alternative to treatment.

SURFACE WATER QUANTITY MANAGEMENT

GOAL

TO ENSURE A FAIR SHARING OF THE AVAILABLE SUPPLY OF WATER TO PROTECT BOTH WITHDRAWAL AND IN-PLACE USES OF WATER

POLICIES

1. Water Quality-Quantity Inter-relationships

The withdrawal of water from and discharge of water to surface water bodies will be controlled to assist in maintaining or restoring water quality for the protection of aquatic life and recreation.

2. Permits to Take Water

Surface water takings will be controlled to prevent interference with other uses of water wherever possible and to resolve such problems if they do occur.

3. Surface Water Conservation

All reasonable and practical measures should be taken to conserve the quantity of surface water in order to maximize its availability for existing or potential beneficial uses.

GROUND WATER QUALITY MANAGEMENT

GOAL

TO PROTECT THE QUALITY OF GROUND WATER FOR THE GREATEST NUMBER OF BENEFICIAL USES

In the majority of cases, human consumption will be the most important use of water to be protected, but there are other ground water uses such as agriculture with specific water quality requirements which will also be protected. Appropriate criteria for these two uses are given in Tables 4 and 5. In addition, protection of aquatic life (Table 1) is a consideration in cases where ground water is a significant component of streamflow.

POLICIES

1. Regulated* Sources of Contamination

The waste control requirements for proposed regulated waste discharges will be established on a case-by-case basis. As a general policy, water quality degradation will be controlled in order to protect reasonable uses, existing or proposed, of both ground and surface waters. The Ministry requirements relating to the quantity and the quality to the discharge will be specified and control measures may also be stipulated in the Certificate of Approval.

The treatment or elimination of pollutants from existing activities will be required where it is demonstrated that such measures are practicable and necessary to correct use impairment and will prevent further degradation or improve water quality. Where such measures are not practicable, the Ministry may require replacement of the affected supplies.

2. Unregulated** Sources of Contamination

All reasonable measures shall be undertaken to reduce or prevent the contamination of ground water by proposed or existing unregulated activities.

- * Regulated refers to those activities which require specific approval under the Ontario Water Resources Act or the Environmental Protection Act.
- ** Unregulated refers to those activities which do not require specific approval under the <u>Ontario Water Resources Act</u> or the Environmental Protection Act.

GROUND WATER QUANTITY MANAGEMENT

GOAL

TO ENSURE THE FAIR SHARING AND CONSERVATION OF GROUND WATER

POLICIES

1. Permits to Take Water

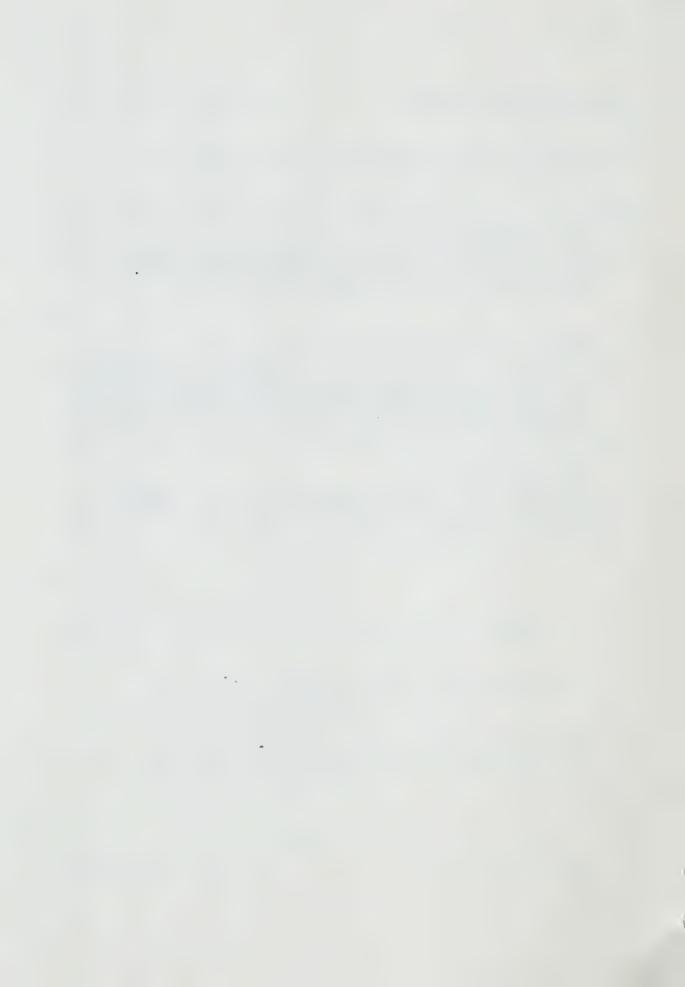
Ground water takings will be controlled to prevent water supply interference wherever possible through a water taking permit program under Section 37 of the Ontario Water Resources Act.

2. Resolution of Interference Problems

In the event that a ground water taking authorized by permit interferes with another water supply obtained from any adequate source that was in use prior to the issuance of the permit, the party causing the interference shall restore the affected supply or reduce the taking to eliminate the interference.

3. Ground Water Conservation

All reasonable and practical measures shall be taken to promote the conservation of ground water.





POLICY TITLE

SURFACE WATER QUALITY MANAGEMENT - DEVIATION FROM POLICY TWO

NO

15-02-01

Legislative Authority

the Ontario Water Resources Act

Statement of Principles

This policy elaborates the Ministry of the Environment's practice concerning deviations from Surface Water Quality Management Policy 2 as described in Water Management - Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment, November 1978 (revised May 1984), p.14 and in Policy No. 15-01 of this Manual.

Definitions

Deviations

"Deviation" from Policy 2 refers to instances where, in areas with water quality not meeting Provincial Water Quality Objectives (PWQO), it is not possible, for reasons specified in Section 2.1 below, to prevent further degradation of existing water quality.

November 12, 1986

Point of Contact

Director, Water Resources Branch

Effective Date

March 1980

1. Surface Water Quality Management - Policy Two

1.1 Areas With Water
Quality Not
Meeting The
Objectives

Water quality which presently does not meet the Provincial Water Quality Objectives shall not be degraded further and all practical measures shall be taken to upgrade the water quality to the Objectives.

1.2 Evaluation And Remedial Measures

Evaluations of existing conditions in problem areas shall be conducted and remedial measures shall be taken to upgrade water quality to the PWQO as stipulated under PWQO Policy 3.

1.3 New or Expanded Discharges

The Ministry will require that all reasonable and practical measures be taken to reduce waste loadings. Where new or expanded discharges are proposed, no further degradation will be permitted and all practical measures shall be undertaken to upgrade water quality.

2. <u>Deviations from Policy</u> Two

2.1 Conditions

In exceptional cases where it is clearly demonstrated that all reasonable and practical measures to attain Provincial Water Quality Objectives have been undertaken but where:

- (a) the Provincial Water Quality Objectives are not attainable because of natural background water quality; or
- (b) the PWQO are not attainable because of irreversible man-induced conditions; or
- (c) to attain or maintain the PWQO would result in substantial and widespread adverse economic and social impact; or
- (d) suitable treatment techniques are not available;

then deviations may be allowed, subject to the approval of the Director, Water Resources Branch, in consultation with the Regional Director. Where public hearings into proposals for new or expanded discharges are held under Sections 7 or 11 of the Environmental Assessment Act or Sections 25 and 26 of the OWR Act, such hearings may be utilized to consider this issue.

3. Interpretation

A deviation from Policy 2 is required if the discharge will contain one or more of the parameters which have led to the Policy 2 designation, and all practical pollution abatement measures will not prevent further degradation in water quality.

3.1 Application Of a Deviation

Policy 2 and the deviation clause will be applied on a parameter-by-parameter basis. If a parameter A violates the PWQO in a given waterbody, then Policy 2 will apply to this parameter.

3.1.1 Proposed Facilities

As an example of another aspect of this interpretation, consider a proposed facility which will discharge to a waterbody where parameters A, B, and C violate the PWQO. If the treated effluent from the new facility will not contain or affect substances A, B, or C, no deviation will be required.

3.1.2 Reason For Deviation

A deviation is granted because the combined effect of the proponent's discharge and upstream (natural or man-made) polluting sources results in violation of one or more of the PWQO.

4. <u>Consequences of</u> Deviation

4.1 Water Quality Evaluation

Granting of a deviation by the Director, Water Resources Branch shall not be construed as permission to maintain unsatisfactory water quality. Approval of a deviation must lead to an extensive water quality evaluation which will:

- (a) identify the upstream sources of pollution resulting in the PWQO violation;
- (b) evaluate methods of eliminating or effectively reducing the impact of the polluting source(s);
- (c) develop and implement a remedial measures plan.

4.2 Timing of Evaluation

The measures in 4.1 should be carried out ideally at the time of evaluation of the proposed discharge, or at least within a credible time period (about five years) following the granting of the deviation.

4.3 Role of Regional Staff

Regional staff will provide the Water Resources Branch with a copy of receiving water assessments carried out by regional staff for dealing with discharges to water bodies where Policy 2 applies. This will:

- (a) permit an evaluation of whether the current interpretation of the deviation clause is, in fact, the most appropriate approach, or if other possibilities should be considered:
- (b) enable Water Resources Branch staff to act as a clearing house in advising regions of innovative approaches to similar situations encountered in other regions;
- (c) facilitate the provision of technical and policy assistance by Water Resources Branch staff;
- (d) promote the equitable application of policy.



POLICY TITLE

PROVINCIAL WATER QUALITY OBJECTIVES
FOR RADIONUCLIDES AND TOTAL DISSOLVED SOLIDS

NO

15-03-01

Legislative Authority

the Ontario Water Resources Act

Statement of Principles

The Ministry has revised the Provincial Water Quality Objectives for radionuclides and Total Dissolved Solids (TDS) for the protection of aquatic life and recreation. The previous objectives are listed in Table 1 of the MOE publication "Water Management", November, 1978 (pp. 34-36).

1. Provincial Water Quality
Objectives for
Radionuclides

Radiation exposure should be kept as low as reasonably achievable, economic and social factors being taken into account.

The Provincial Water Quality Objectives for radionuclides are based on drinking water requirements, which are derived from dose-response relationships as recommended by the International Commission on Radiological Protection (ICRP) in Publication 26.

August 22, 1986

Point of Contact

Director, Water Resources Branch

Effective Date

August 23, 1982

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Objectives* are as follows:

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Tritium

Radionuclide**	Provincial Water Quality Objective*** Becquere ls/Litre
Cesium ₁ 37 Iodine ₁ 31 Radium ₂ 26 Strontium ₉ 0	50 10 1

- The radionuclide objectives are based on the total concentration of an unfiltered water sample.
- ** If two or more radionuclides affecting the same organ or tissue are found to be present, the following relationship based on the International Commission on Radiological Protection Publication 26 should be satisfied:

where c_1 , c_2 and c_i are the observed concentrations, and C1, C2 and Ci are the maximum acceptable concentrations for each contributing radionuclide.

*** Radionuclide concentrations exceeding the maximum acceptable concentrations may be tolerated provided that the duration of the increase is short and that the annual average concentrations remain below this level and meet the restriction for multiple radionuclides.

> For further information on the radionuclide objective as related to potable water supplies, reference should be made to the MOE publication "Ontario Drinking Water Objectives".

2. Provincial Water Quality
Objective for Total
Dissolved Solids

The previously-established Provincial Water Quality Objective for Total Dissolved Solids (TDS) has been withdrawn, following an MOE review which concluded that there was insufficient scientific evidence to support the Objective. The Ministry plans to undertake a systematic program to develop a revised objective for TDS. Pending completion of that task, appropriate TDS requirements will be developed as the need arises on a case-by-case basis. Inquiries concerning the appropriate TDS value for a given area can be directed to the Water Resources Branch or the appropriate MOE Regional Office.





POLICY TITLE RESOLUTION OF WELL WATER QUALITY PROBLEMS RESULTING FROM WINTER ROAD MAINTENANCE

NO

15-04-01

Legislative Authority

the Environmental Protection Act, Section 16

Statement of Principles

This policy summarizes cost-sharing arrangements for situations where restoration of groundwater supplies are required as a result of winter road maintenance by a road authority. It provides guidance to Ministry of the Environment (MOE) field staff, road maintenance authorities and the public in the interpretation, implementation and application of this arrangement.

1. Objective Of Policy

The objective of this policy is to provide a cost-sharing arrangement between MOE and a road authority to reimburse homeowners in situations where restoration of homeowners' ground-water supplies is warranted as a result of the effects of winter road maintenance.

Point of Contact

Director, Water Resources Branch

Effective Date

June 15, 1984

2. Funding Arrangements

2.1 Eligibility

Any well supply requiring restoration as a result of winter road maintenance by a road authority will be eligible for 100% of the allowable costs in those cases where a road authority agrees to participate and for 75% where a road authority refuses to participate.

2.2 Payments

MOE will reimburse the affected homeowner for 75% of the allowable costs, either directly or through a cooperating road authority.

3. Policy Implementation for Cases Involving Individuals or Small Groups of Homeowners (5 homes and less)

3.1 Handling of Complaints

The appropriate MOE regional office will examine and investigate the complaint and prepare a report outlining the conclusions, alternative courses of action and recommendations. Once a complaint is accepted by MOE, the cooperating road authority or the MOE regional office will take action through the homeowner affected to restore the water supply according to the report recommendations, and will receive invoices for review and subsequent reimbursement of the homeowner.

4. Policy Implementation for Cases Involving More Than 5 Households

4.1 Priority Replacement

Where more than 5 households are involved, the present system under the Private Services Funding Program will apply. However, 25% of the cost, normally paid by the homeowner, may be paid by the road authority. All claims resulting from winter road maintenance will be regarded as a priority under the Program. Consideration of the project by the Management by Results Committee will not be required.

4.2 Use of Consultants

Where more than 5 households are involved the use of consultants is advised to identify problems and recommend solutions.



POLICY TITLE

GUIDELINES FOR SNOW DISPOSAL AND DEICING OPERATIONS IN ONTARIO

NO

15-05-01

Legislative Authority

the Ontario Water Resources Act, Section 16 the Environmental Protection Act, Sections 5 the Environmental Assessment Act, Section 5

Statement of Principles

Guidelines to minimize the environmental impact of snow collection and disposal practices and deicing operations are developed for the regional offices of the Ministry of the Environment and road maintenance agencies. Detailed information on the guidelines can be obtained from the document entitled, "Guidelines for Snow Disposal and Deicing Operations in Ontario, 1975".

1. Snow Disposal Guidelines

1.1 Snow Removal

Snow removal operations should be carried out as follows:

- (a) snow from heavily travelled roadways should be removed as quickly as possible following a storm; and
- (b) efforts should be made to minimize the chances of picking up refuse as part of the snow removal operations.

March 1, 1984

Point of Contact

Director, Water Resources Branch

Effective Date

March 1, 1984

1.2 Snow Disposal

Direct disposal of snow to watercourses or on ice-covered lakes and rivers should be eliminated wherever possible. Disposal on properly selected land sites, based on the criteria outlined in 1.4, is considered in most cases the best solution.

1.3 Ministry Approval For Direct Disposal

If special circumstances preclude the disposal of snow on land sites or by other satisfactory means, Ministry approval from the Region is required prior to dumping directly to a watercourse.

1.4 Evaluation of Snow Disposal Sites

A number of criteria are used to evaluate the relative suitability of disposal sites; they are:

- (a) accessibility;
- (b) noise;
- (c) alternative and future use of the site;
- (d) visual considerations:
- (e) surface and sub-surface drainage;
- (f) previous use of the site;
- (g) stability of the soils; and
- (h) public safety.

2. <u>Deicing Operational</u> Guidelines

The Ministry encourages the sensible and conservative use of sodium chloride and other deicing compounds and recommends the following operational guidelines to be used by road maintenance agencies:

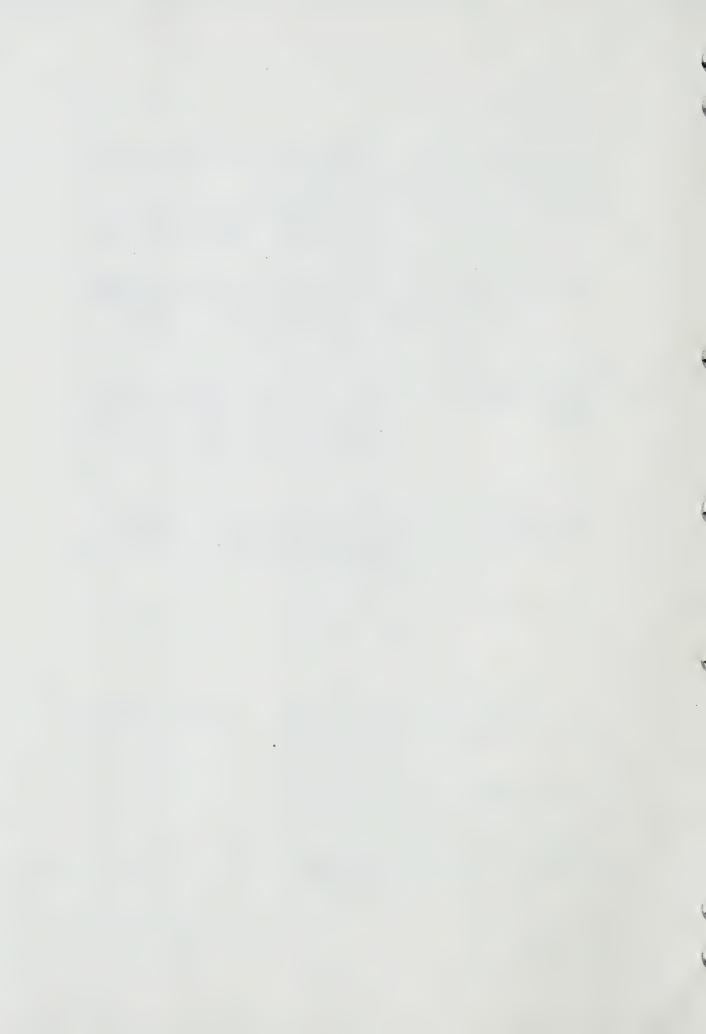
- (a) reduce deicing chemical application rates to the minimum amount necessary to successfully perform the job;
- (b) employ rate-controlled distribution equipment which applies the deicing chemical at the proper rate, regardless of the vehicle's speed;

- (c) apply deicing chemicals on main thoroughfares and critical sections of roadways only;
- (d) where salt/sand mixtures are applied incorporate into the admixture only enough salt to achieve the desired results; and
- (e) consider special protective measures when deicing chemicals are applied to places in proximity to very salt sensitive areas (e.g., orchards, parks).
- 3. <u>Deicing Chemical</u> Storage

Deicing chemicals or sand/salt stockpiles should always be protected from precipitation or surface runoff. The Ministry recommends that permanent storage structures be installed wherever possible.

4. The Environmental Assessment Act

Where an activity covered by this policy is an undertaking under the Environmental Assessment Act, it shall not proceed except in compliance with that act.





POLICY TITLE

DRINKING WATER QUALITY:
ONTARIO DRINKING WATER OBJECTIVES (ODWO)

NO

15-06-01

Legislative Authority

the Ontario Water Resources Act, R.S.O. 1980. Section 7(1)(d), Section 23 and Section 44

Statement of Principles

This policy deals with the protection and enhancement of drinking water quality as described in the Ministry of the Environment document entitled "Ontario Drinking Water Objectives". The policy is intended to protect public health and encourage the provision of aesthetically pleasing water.

The quality of drinking water shall conform to the limits described in the aforementioned document except where indicated otherwise. Where the quality of drinking water is better than provincial limits, every effort shall be made to maintain or improve that quality.

Definitions

Maximum Acceptable Concentration

Maximum Acceptable Concentration (MAC) is the term used for limits applied to substances above which there are known or suspected adverse health effects.

November 12, 1986

Point of Contact

Director, Water Resources Branch

Effective Date

April 27, 1983 ·

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<u>Interim Maximum Acceptable</u> <u>Concentration</u>

Interim Maximum Acceptable Concentrations (IMAC) is the term used to describe limits for substances of current concern with known chronic effects in mammals and for which there are no established Maximum Acceptable Concentrations.

Target Concentration

Target Concentration, a term applied only to radionuclides, is intended to be a guideline for life-long continuous consumption.

Maximum Desirable Concentration

Maximum Desirable Concentration (MDC) is the term used for limits on substances which, when present at concentrations above the limits, are either aesthetically objectionable to an appreciable number of consumers or may interfere with good water quality control practices.

1. Policy Statements

1.1 Source Protection and Treatment

All drinking water systems shall have acceptable source protection and treatment processes to ensure that the appropriate limits for drinking water are met.

1.2 Sampling and Monitoring

Adequate sampling and monitoring programs are to be undertaken for chemical, physical, radiological and microbiological parameters, to ensure compliance with required water quality criteria.

1.3 Non-compliance

Whenever adverse sampling or monitoring results are encountered, appropriate response procedures are to be followed.

1.4 Notices

Drinking Water Notices will be issued as required, to clarify or otherwise give notice of revisions to the Ontario Drinking Water Objectives document and its related policies and guidelines.

2. Policy Available

Details on the above policy statements may be found in the document entitled "Ontario Drinking Water Objectives", which was revised in April, 1982, and is available from the Water Resources Branch.



POLICY TITLE

EVALUATING CONSTRUCTION ACTIVITIES - HYDROCARBON TRANSMISSION AND DISTRIBUTION PIPELINES CROSSING WATERCOURSES

NO

15-07-01

Legislative Authority

the Ontario Water Resources Act, Section 15 the Environmental Protection Act, Section 2, 5

Statement of Principles

This policy provides guidelines for evaluating the potential adverse impacts of pipelines during watercourse crossings and for planning adequate mitigative measures. It is intended to aid proponents, consultants and the public in preparing plans and assessments for proposed hydrocarbon transmission and distribution pipelines, as well as to direct and guide staff of the Ministry of the Environment in reviewing environmental assessments and proposals for pipeline projects.

Detailed information on these policy guidelines can be obtained form the first of five parts of the handbook, "Evaluating Construction Activities Impacting on Water Resources: Part I. Guidelines for Construction of Hydrocarbon Transmission and Distribution Pipelines Crossing Watercourses, 1982".

1. Objective of Policy

The objective of this policy is to ensure that good construction practices for transmission pipelines crossing watercourses are used and that the physical and biological integrity of Ontario's waterbodies are protected.

Information on other environmental concerns of the Ministry of the Environment for new or expanding hydrocarbon pipeline facilities proposed in Ontario is contained in this Policy Manual, under Policy No. 07-06, Ministry of the Environment Considerations for Proposed Hydrocarbon Pipeline Facilities in Ontario.

March 1, 1984

Point of Contact

Director, Water Resources Branch

Effective Date

March 1, 1984

2. Application

This policy applies to all energy-related transmission pipeline projects in Ontario. It concentrates on the watercourse crossing aspects of pipeline construction as they relate to the production of sediment.

MOE is one of the agencies responsible for reviewing proposals and applications for hydrocarbon transmission and distribution pipeline projects in the Province for either the Ontario Energy Board or the National Energy Board. This policy shall be used by MOE staff in their review and by proponents in the evaluation of impacts and the planning of mitigative measures.

3. Effects of Sediment on the Aquatic Environment

Short— and long—term effects of sedimentation may involve the alteration of the light, temperature and water chemistry regimes of the watercourse. As contaminated sediment may be released into the water column during trench excavation, bed disturbances should be restricted to as small an area as possible.

4. <u>Impacts of</u> Sedimentation

Input from construction-related sediment loads may have certain adverse impacts on the ecosystem and watercourse uses. Every effort should be made to reduce the extent and duration of turbid conditions and the sediment loads.

5. Methods of Sediment Control

Nineteen recommendations for minimizing watercourse crossing impacts are detailed in the 1982 Guidelines. The reduction of instream work time is a fundamental principle of the recommendations.

The method of stream crossing should be based on a site-specific evaluation. Water quality and water use impacts associated with watercourse crossing by transmission pipelines can be minimized by achieving:

- (a) the shortest possible construction time during the season of least disturbance to the aquatic biota and watercourse uses;
- (b) limited instream disturbance; and
- (c) immediate implementation of postconstruction stabilization measures

6. Watercourse Sensitivity

The sensitivity of a watercourse shall be determined through pre-submission of preliminary environmental assessment information by the proponent for review by local Ministry staff and other concerned agencies.

6.1 Environmental Study Report (ESR)

The Ontario Energy Board usually requires a proponent to prepare an ESR which is circulated to concerned agencies for review. The sensitivity of the watercourse dictates the level of detail required in the report.

6.2 <u>Sensitive</u> Watercourses

Watercourses may be designated sensitive if there is any indication that water use will be adversely affected by short—and/or long-term impacts. Detailed information on the proposed undertaking, existing environment (pre-construction conditions), likely effects and mitigative measures should be collected for sensitive watercourses. As well, the nineteen recommendations referenced in Section 5 above should be followed.

6.3 Non-Sensitive Watercourses

For those watercourses which have not been designated sensitive, the same approach outlined in section 6.2 should be used but the level of detail contained in the ESR need not be as great.

7. Monitoring Requirement

Depending on the watercourse sensitivity, the Regional MOE director may require that the proponent implement a monitoring program to provide the data necessary for a quantitative assessment of the impacts of the pipeline crossing operation upon the watercourse environment.

8. Policy Implementation

The regional offices of MOE will be responsible for implementing this policy. Further detail on implementation is contained in Section 5 of Policy No. 07-06, entitled Ministry of the Environment Considerations for Hydrocarbon Pipeline Facilities in Ontario.



POLICY TITLE

INCORPORATION OF THE REASONABLE USE CONCEPT INTO MOE GROUNDWATER MANAGEMENT ACTIVITIES

NO 15-08-01

Legislative Authority

the Ontario Water Resources Act, R.S.O. 1980

Statement of Principles

This policy establishes the basis for determining the reasonable use of groundwater on property adjacent to sources of contaminants and explains the role of a reasonable use approach in the Ministry's various activities related to groundwater quality.

The policy is designed to facilitate implementation of the groundwater quality management policies and procedures contained in the publication "Water Management - Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment", which are based on protecting existing and potential reasonable uses of water. The reasonable use concept applies only to groundwater quality management.

The policy addresses the levels of contaminant discharges considered acceptable by the Ministry and the levels of contamination in water supplies which would warrant restoration of those water supplies.

Detailed information on the policy is contained in the document entitled "The Incorporation of the Reasonable Use Concept into the Groundwater Management Activities of the Ministry of the Environment", April 1986.

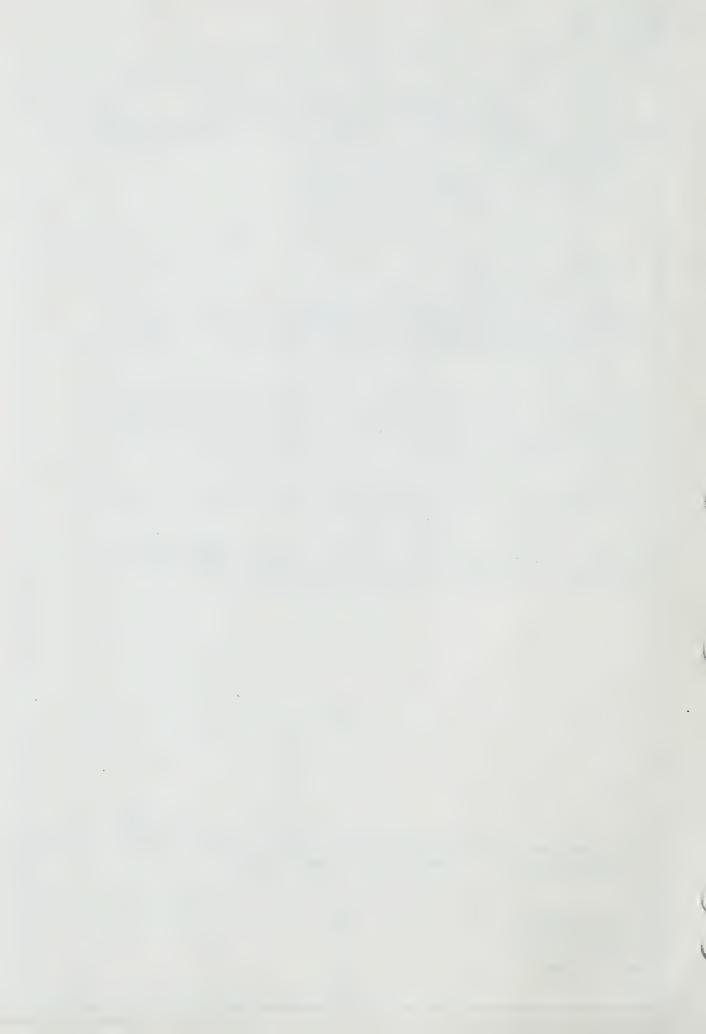
May 1, 1986

Point of Contact

Director, Water Resources Branch

Effective Date

April 25, 1986





POLICY TITLE

EVALUATING CONSTRUCTION ACTIVITIES - HIGHWAYS AND BRIDGES

NO

15-09-01

Legislative Authority

the Ontario Water Resources Act, Section 15 the Environmental Protection Act, Sections 2, 5 the Environmental Assessment Act, Section 5

Statement of Principles

This policy addresses water resource concerns related to the construction of highways and bridges and is for use in the environmental impact assessment process by proponents and Ministry of the Environment (MOE) staff. The intent is to provide assistance both in anticipating potential impacts and in planning adequate mitigative measures.

Detailed information on these Guidelines is contained in the handbook, "Evaluating Construction Activities Impacting on Water Resources: Part II: Guidelines for Construction of Highways and Bridges, 1983".

1. Objective

The objective of this policy is to ensure that good construction practices for highways and bridges are used to minimize sediment input into watercourses, and that the physical and biological integrity of Ontario's waterbodies are protected in accordance with Policy 15-01 of this Manual.

March 1, 1984

Point of Contact

Director, Water Resources Branch

Effective Date

March 1, 1984

2. Application

This policy applies to all highway and bridge projects in Ontario. Most of these projects are carried out by the public sector and are subject to the Environmental Assessment Act.

Under the Act, proponents are required to prepare an environmental assessment (EA) for review by concerned agencies prior to a decision by the Minister of the Environment regarding approval. These Guidelines shall be used by MOE staff in their review of EAs submitted as part of the EA procedure, and by proponents for evaluating water resources impacts and planning mitigative measures.

3. Effects of Highway and Bridge Construction

Short- and long-term effects of highway and bridge construction on the aquatic environment may involve erosion and sedimentation, degradation of ground and surface water quality, disruption of ground and surface water quantity, damage to watercourse bed and banks, channel modification, and an increase in surface runoff. These effects may have negative impacts on the watercourse ecosystem and on other beneficial uses:

$\begin{array}{c} \textbf{4.} & \underline{\textbf{Mitigation of}} \\ \hline \textbf{Construction-Related} \\ \hline \textbf{Impacts} \\ \end{array}$

Recommendations to mitigate and minimize potential short— and long—term impacts are outlined in the Guidelines. Short—term, construction—related impacts generally can be minimized through sound construction practices and various site— specific control methods. Long—term impacts can be minimized through a combination of careful project design and site restoration measures.

5. Water Resource Requirements in Environmental Assessment Reports

The following water resource requirements shall be considered by proponents and reviewers during the preparation and review of EA reports:

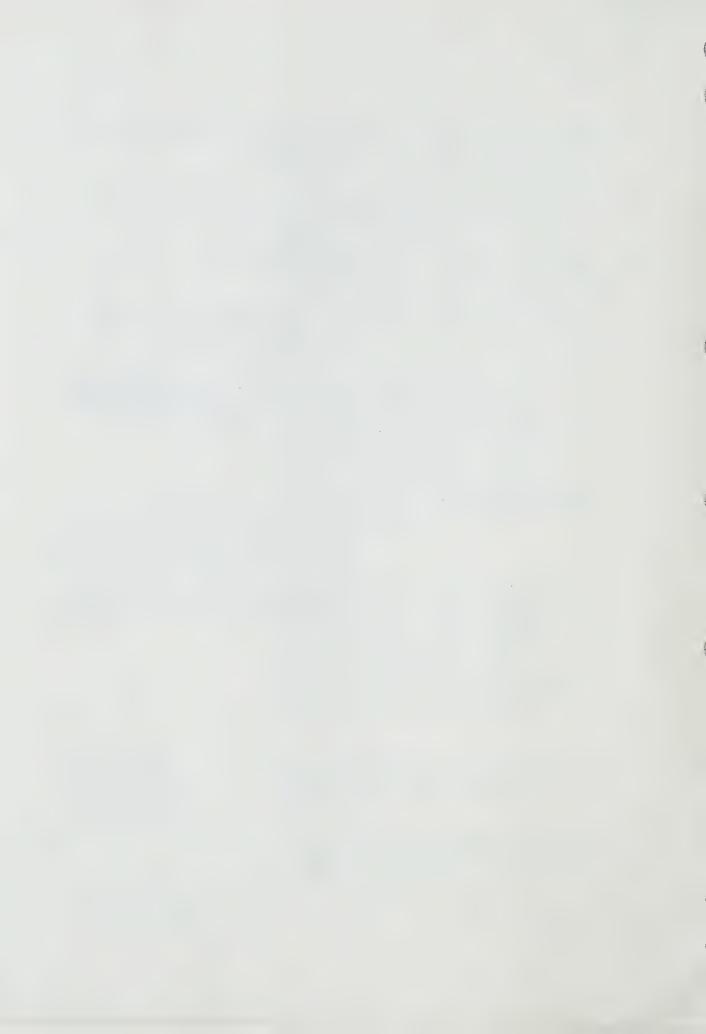
(a) baseline data on the pre- construction conditions as they pertain to the quality and quantity of surface and ground water;

- (b) a description of the proposed undertaking and identification of potential impacts;
- (c) an estimation of impact magnitude;
- (d) a strategy for the implementation of mitigative measures;
- (e) a rehabilitation plan for the site and/or route;
- (f) a monitoring program for evaluating the effectiveness of construction-related mitigative measures and the rehabilitation plan; and
- (g) summary statements on the abovementioned water resource requirements which are substantiated by valid references and/or data, with verifiable results of all analyses.

6. Policy Implementation

This policy will be implemented by:

- (a) the Environmental Assessment Branch and the Environmental Approvals and Land Use Planning Branch of MOE during the review and preparation of EAs; and
- (b) the regional offices of MOE during field inspection and EA review.





POLICY TITLE

GUIDELINES FOR THE RESOLUTION OF GROUND WATER QUALITY INTERFERENCE PROBLEMS

NO

15-10-01

Legislative Authority

the Ontario Water Resources Act the Environmental Protection Act

Statement of Principles

These guidelines are intended to facilitate implementation of the ground water quality management policies spelled out in the publication "Water Management". Reference should be made to that document, and to the report "The Resolution of Ground Water Quality Interference Problems" for additional details of these guidelines.

Definitions

Environment

For the purposes of the ground water quality management policy, the environment includes:

- the subsurface;
- water within the subsurface; and
- the path traversed during the movement of contaminants:
 - from the surface to the subsurface;

November 12, 1986

Point of Contact

Director, Water Resources Branch

Effective Date

October 29, 1986

from the subsurface to the surface;

within the subsurface.

Ground Water Quality Interference

The deterioration of the quality of ground water resulting from the release of contaminants.

1. MOE Jurisdiction

The Ministry has jurisdiction over the investigation, clean-up and restoration of the environment and/or water supplies.

2. Who Can Take Action

The action necessary to resolve these cases can be taken by the polluter, the affected party, the Ministry, the municipality or others.

3. Mechanism for Action

There are a number of mechanisms available to ensure that the appropriate action is taken. These include the use of Ministerial Orders, outside consultants, voluntary support from either the polluter or the affected party, or by the Ministry, the municipality or others doing the work required.

4. Responsibility

4.1 Responsibility of MOE

The Ministry will in all cases and at all times ensure that action is taken to resolve ground water quality interference and this responsibility will not be abdicated when delegated to or assumed by any other party. The Ministry may order, request or hire someone to carry out the required work to its satisfaction.

The required resolution of each case with respect to clean-up and restoration will be determined and specified by the Ministry and will depend upon site-specific conditions.

Implementation procedures and guidelines are presented in detail in Appendix I of the report "The Resolution of Ground Water Quality Interference Problems".

4.2 Responsibility of Owner

It is the responsibility of the owner of the contaminant or the person having control of the contaminant to pay for all costs associated with the contaminant discharge including the investigation, the clean-up of the environment, and the restoration of affected water supplies and to do all that is practicable to minimize damage caused by the contaminant discharge and to facilitate clean-up.

Where it will not substantially impede the resolution of a problem the polluter will be given the opportunity to act in any or all aspects of the clean-up, investigation or restoration. However, when MOE is not satisfied with the progress being made by the polluter, the Ministry will proceed to resolve or alleviate the problem using whatever means are available and appropriate.

Where the pollution is a "spill" under Part IX of the Environmental Protection Act, the polluter has a clear duty to clean up, and specific tools are available to the Ministry (see Sections 81, 82, 85 and 88).

5. Action Plan

In no case will substantial Ministry funds be expended or costly corrective action ordered until an action plan has been prepared. The plan should take the following into consideration:

- the anticipated scope, timing and methodology of
 - . investigation;
 - clean-up; and
 - . restoration;
- the anticipated legal and administrative action for closing out the problem and collecting funds, should this be necessary.

6. Funding and Costs

Prior to any extensive investigations, the costs of the proposed resolution — including investigation, clean—up and restoration — shall be weighed against the benefits of doing the work (See Appendix II of the report "The Resolution of Ground Water Quality Interference Problems").

Where it is anticipated that costs to the Ministry for the investigation, clean-up and restoration will be significant, the Regional Director will have to seek funds from the appropriate source.

7. Clean- Up

The Ministry of the Environment will decide on a case-by-case basis what, if any, level of clean up it will require or undertake. (See Appendix II of the report "The Resolution of Ground Water Quality Interference Problems").

8. Restoration

The permanent restoration of water supplies which have been significantly affected and the provision of temporary supplies will be required or undertaken in cases where the problem is caused by a third party (not the complainant), whether or not the specific origin of the contamination can be identified.

No restoration will be undertaken where the problem is:

- self-induced;
 - of a natural cause; or
- insignificant.



POLICY TITLE EVALUATING CONSTRUCTION ACTIVITIES - MARINE CONSTRUCTION PROJECTS

NO

15-11-01

Legislative Authority

the Ontario Water Resources Act the Environmental Protection Act the Environmental Assessment Act

Statement of Principles

This policy addresses water resource concerns related to marine construction. It is developed for use in the environmental impact assessment process by proponents and Ministry of the Environment (MOE) staff. The intent is to provide assistance both in anticipating potential impacts and in planning adequate mitigative measures.

Detailed information on these guidelines is contained in the handbook, "Evaluating Construction activities Impacting on Water Resources: Part IV: Marine Construction Projects, 1986".

1. Objective of Policy

The objective of this policy is to ensure that good construction practices for marine construction projects are used to minimize sediment input into watercourses, and that the physical and biological integrity of Ontario's waterbodies are protected in accordance with Policy No. 15-01 of this Manual.

October 3, 1986

Point of Contact

Director, Water Resources Branch

Effective Date

October 1, 1986

2. Application

This policy applies to all marine construction projects in Ontario:

- that are subject to the Environmental Assessment Act.
- 2. that are in the private sector or not otherwise subject to the Environmental Assessment Act. In these cases the Ministry will recommend to the reviewing agency that the requirements of this policy be applied.

Under the Environmental Assessment Act, proponents are required to prepare an environmental assessment (EA) for review by concerned agencies prior to a decision by the Minister of the Environment regarding approval. These Guidelines shall be used by MOE staff in their review of EAs submitted as part of the EA procedure, and by proponents in the evaluation of water resources impacts and in the planning of mitigative measures.

3. <u>Effects of Marine</u> Construction

Short— and long—term effects of marine construction on the aquatic environment may involve erosion and sedimentation, degradation of ground and surface water quality, disruption of ground and surface water quantity, damage to watercourse bed and banks, channel modification, and increase in surface runoff.

These effects may have negative impacts on the water course ecosystem and on other beneficial uses.

4. Mitigation of Construction-Related Impacts

Recommendations to mitigate and minimize potential short— and long—term impacts are outlined in the Guidelines. Short—term, construction—related impacts can generally be minimized through sound construction practices and various site specific control methods. Long—term impacts can be minimized through a combination of careful project design and site restoration measures.

5. Water Resource
Requirements in
Environmental Assessment
Reports

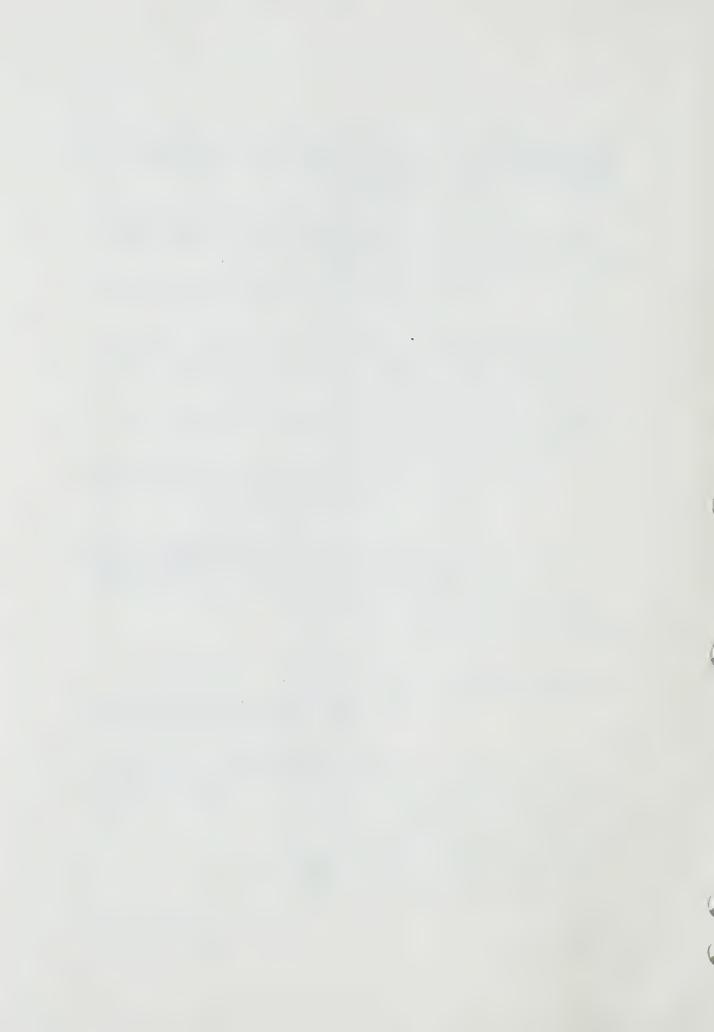
The following water resource requirements shall be considered by proponents and reviewers during the preparation and review of EA reports:

- (a) baseline data on the pre-construction conditions as they pertain to the quality and quantity of surface and ground water;
- (b) description of the proposed undertaking and identification of potential impacts;
- (c) estimation of impact magnitude;
- (d) strategy for the implementation of mitigative measures;
- (e) a rehabilitation plan for the site
 and/or route;
- (f) monitoring program for evaluating the effectiveness of construction-related mitigative measures and the rehabilitation plan; and
- (g) summary statements on the above-mentioned water resources information shall be substantiated by valid references and/or data, and results of all analyses shall be verifiable.

6. Policy Implementation

This policy will be implemented by:

- (a) the Environmental Assessment Branch and the Approvals Branch of MOE during the review and preparation of EAs;
- (b) the regional offices of MOE during field inspection and EA review.





POLICY TITLE

EVALUATING CONSTRUCTION ACTIVITIES - SMALL SCALE CONSTRUCTION PROJECTS

NO

15-12-01

Legislative Authority

the Ontario Water Resources Act the Environmental Protection Act

Statement of Principles

This policy addresses water resource concerns related to small scale construction projects. It is developed for use by proponents and the Ministry of Environment (MOE) Staff. The intent is to provide assistance both in anticipating potential impacts and in planning adequate mitigative measures.

Detailed information is contained in the guide "Evaluating Construction Activities Impacting on Water Resources: Part V: Guide to Protecting the Aquatic Environment During Small Scale Waterfront Construction Projects, September 1986".

1. Objective of Policy

The objective of this policy is to ensure that good construction practices for small scale construction projects are used to minimize sediment and chemical inputs into water courses, and that the physical and biological integrity of Ontario's waterbodies are protected in accordance with Policy No. 15-01 of this manual.

October 3, 1986

Point of Contact

Director, Water Resources Branch

Effective Date

October 1, 1986

2. Application

This policy applies to all small scale construction projects in Ontario. Most of these projects are carried out by the private sector such as cottages and waterfront property owners. This guideline shall be used by MOE staff in their review of small scale construction projects and by proponents in the evaluation of water resources impacts and in the planning of mitigative measures.

3. <u>Effects of Small Scale</u> Construction

Short and long-term effects of construction on the aquatic environment may involve erosion and sedimentation, degradation of surface water quality, disruption of surface water quantity, damage to water course bed and banks, and channel modification. These effects may have negative impacts on the watercourse ecosystem and on other beneficial uses.

4. <u>Mitigation of Construction Related Impacts</u>

Recommendations to mitigate and minimize potential short and long-term impacts are outlined in the guide. Short-term, construction related impacts can generally be minimized through sound construction practices and various site specific control methods. Long-term impacts can be minimized through a combination of careful project design and site restoration measures.

5. Policy Implementation

This policy will be implemented by the regional offices of MOE during field inspection and project reviews.



POLICY TITLE POTABLE WATER STORAGE STRUCTURES

NO

15-13-01

Legislative Authority

the Ontario Water Resources Act

Statement of Principles

This policy establishes the requirement for the provision of covers for structures used for the storage of potable water. This requirement is necessary to ensure that water stored for human consumption remains free from contamination subsequent to treatment.

This policy is written in support of Policy 15-06 (Ontario Drinking Water Objectives (1983 revision)) of the Manual of Environmental Policies and Guidelines, dealing with Drinking Water Quality in Ontario. Water for drinking and other domestic uses should be safe, palatable and aesthetically appealing. It should be free from pathogenic organisms and hazardous levels of chemicals.

Definitions

Potable Water

Water from ground or surface sources, that is supplied from water works operated by Municipalities and others (as covered under the provisions of Section 23 of the OWR Act) and intended for human consumption.

Point of Contact

Director, Water Resources Branch

Effective Date

May 8, 1987

Potable Water Storage Structures

A structure where potable water is stored for use by consumers.

1. Policy Objective

The objective of this policy is to ensure that stored potable water remains free of contamination after treatment.

2. Application

2.1 General

This policy applies to all potable water storage structures supplied from waterworks operated by Municipalities and others covered under the provisions of Section 23 of the OWR Act.

2.2 MOE Involvement

This policy will be used by MOE staff when reviewing plans for new water works or for upgrading or expanding of existing works.

3. Ministry Requirements of Municipal and Communal Water Works

All existing and future potable water storage structures shall be completely covered to prevent contamination of the stored water. The type of cover shall be decided by the operating authority in consultation with their consulting engineers, and subject to the approval of the Director under Section 23 of the OWR Act.

RATIONALE FOR POLICY REQUIRING COVERING OF POTABLE WATER STORAGE STRUCTURES

Any body of water which is open to the atmosphere (in ground or elevated tank, storage ponds, standpipe, etc.) is subject to contamination from natural precipitation, windblown dust and other airborne contaminants; such sources may contain dissolved, solid or particulate-associated contaminants such as pesticides, microorganisms and other organic and inorganic contaminants, metals etc. In addition, birds and animals may gain access to these stored waters, resulting in contamination by droppings, bodies or feathers etc. Animals and birds can carry and transmit microorganisms that are pathogenic to man (Salmonella species etc.). A recent paper (Am. J. Pub. Hith 76. 424, 1986) suggests that water systems that are unprotected from contact with birds specifically may become contaminated and a source of outbreaks of human campylobacteriosis; in the case of ground level storage there is the added potential for surface run-off, carrying a variety of contaminants including various species of worms and insects. All open waters can potentially serve as breeding grounds for various species of flying insect, e.g., midges, mosquitoes; a cover provided with screened venting would reduce the number of adult insects reaching the water source. Lower food chain aquatic organisms (algae, copepods) are likely to thrive, especially in the summer months. Multiplication of these biota could cause taste and odours or infestations in the distribution system.

As well, there exists a potential for civil liability on the part of the water suppliers for (a) illness or mishap as a result of the water becoming contaminated while being stored in an open reservoir, (b) accidents occurring as a result of persons gaining access to uncovered reservoirs, if they are not adequately protected by fencing and signs.

The Ontario Drinking Water Objectives state that their primary objective is for the protection of public health. Further, "any water intended for human consumption should not contain any disease-causing organisms or hazardous concentrations of toxic chemicals or radioactive substances".

It follows, that there can be no justification for subjecting consumers to the risk of contamination associated with the use of uncovered potable water reservoirs. To do so violates the intent of the Ontario Drinking Water Objectives.

As a result of this risk of contamination and the fact that consumers will directly ingest water from such reservoirs, it must be recommended that all potable water reservoirs be permanently and effectively covered.

The requirement (or a requirement for treatment subsequent to open reservoir storage) is implicitly stated in the Ministry policy on "Treatment Requirements for Municipal and Communal Waterworks using Groundwater Sources". This policy, under "Statement of Principles" indicates that water originating from ground sources and transmitted with or without treatment to uncovered storage reservoirs is deemed not to be groundwater. Since such waters may be subject to similar contamination potentials as exist for surface water sources the Treatment Requirements for Municipal and Communal Water Works using Surface Water Sources policy will apply.



POLICY TITLE

TREATMENT REQUIREMENTS FOR MUNICIPAL AND COMMUNAL WATER WORKS USING SURFACE WATER SOURCES

NO

15-14-01

Legislative Authority

the Ontario Water Resources Act (R.S.O. 1980) Section 7 (1)(d), Section 23 and Section 44

Statement of Principles

This policy describes the treatment that the Ministry will require at municipal and communal water works using surface sources for raw water supplies. It provides technical guidance to Municipalities and Ministry of Environment staff on the production of potable water from these sources.

This policy is written in support of Policy 15-06 of the Manual of Environmental Policies and Guidelines which deals with Drinking Water Quality in Ontario. The Policy applies to water works operated by municipalities and others as covered under the provisions of Section 23 of the OWR Act. The main function of these works is to treat raw water from surface sources to produce potable water. Water transmitted with or without treatment to uncovered storage reservoirs shall be deemed to be surface water, and shall be subject to the requirements of this policy.

All Guidelines referred to in this policy are available from Water Resources Branch or Regional Offices.

Point of Contact

Drinking Water Section, Water Resources Branch

Effective Date

December 31, 1987

HOE TAN

RATIONALE

Water for drinking, culinary, and other domestic uses should be safe, palatable and aesthetically appealing. It should be free from pathogenic organisms, and hazardous levels of chemical and radioactive substances. Other aspects, such as corrosivity, tendency to form incrustations, and excessive soap consumption due to hardness should be controlled on the basis of economic considerations as they can interfere with the intended domestic use of the water.

Aesthetic considerations, such as colour, taste, odour, and turbidity, are factors which determine the quality of water and may also have an indirect health effect. Turbidity may interfere with the ability of a disinfectant to render pathogens harmless and may also transport associated trace contaminants; it is a significant health factor at values much lower than those where turbidity becomes an aesthetic consideration. By itself, filtration of surface raw water will rarely achieve suitably low turbidities.

Surface raw waters in Ontario generally do not meet the prescribed drinking water quality. They either continuously or seasonally exhibit turbidity in excess of the 1 FTU requirement, as well as exceeding other limits.

In order to achieve the intent, quality and characteristics set out in the "Ontario Drinking Water Objectives - April, 1983 Edition", certain treatment processes must be provided depending on the quality of raw water source.

To reduce turbidity and provide basic public health protection, the treatment for surface waters will consist of chemically-assisted coagulation-flocculation filtration and disinfection.

1. Policy Objective

The objective of this policy is to protect the health of the public by ensuring that the quality of potable water produced from these works conforms to the intent and limits set out in the Ministry of the Environment's "Ontario Drinking Water Objectives - April 1983 Edition".

2. Ministry Requirements of Municipal and Communal Water Works

All water works shall have acceptable raw water supply, source protection and treatment processes to ensure that the potable water produced shall meet the intent and the limits set out in the "Ontario Drinking Water Objectives".

3. Acceptabilty of Raw Water Supply

A sampling program with adequate analyses should be carried out to establish the acceptability of the source supply and the raw water quality variations.

These analyses will accompany the application for Certificate of Approval for water works. The sampling program must be under the direction of Regional staff. The parameters to be analyzed should be broadly based on the "Ontario Drinking Water Objectives"; analysis for additional parameters may be required at the discretion of Regional staff, based on the local potential for contamination, or where there exists a known discharge or other situation likely to contribute contaminants. Analyses should be completed by such methods, and under such conditions as recommended by the Regional staff, after consultation with other Branches of the Ministry of the Environment when needed. Results of the analyses will be made available to the public upon request.

Responsibility for the sampling program rests with the proponent. The Ministry, at its discretion, may assist in carrying out the sampling program.

4. Level of Treatment

All water works in the Province of Ontario which utilize surface waters, i.e., lakes, rivers, streams, etc., as a source of raw water shall use treatment processes consisting of coagulation-flocculation (by means of the application of approved chemical coagulants), filtration and disinfection except as provided in section 4.1 and in the Ministry's Guidelines listed below.

Other treatment processes capable of producing potable water of equivalent or better quality will also be considered as acceptable alternatives.

4.1 <u>Variance from Treatment</u> Requirements

Where it is considered that proper source protection exists and the source quality is such as to warrant a variance from the treatment requirements, exemptions may be recommended on a case-by-case basis and in accordance with the Ministry's Guidelines listed below:

Guidelines For Granting a Variance from the Treatment Requirements For Municipal and Communal Water Works Using Surface Water Sources

No surface water supplies can be provided for domestic consumption without effective disinfection.

4.2 Higher Treatment

Higher levels of treatment may be needed to ensure that the potable water shall meet the intent and the limits set out in the "Ontario Drinking Water Objectives". Higher levels of treatment shall be justified by more intensive and appropriate site-specific sampling and analysis of raw water supply sources.

5. Review of Treatment Requirements

The level of treatment required for individual water works shall be subject to periodic review by MOE Regional Offices as necessary, especially when expansions of water works are contemplated.

More stringent treatment requirements may be needed as justified by site specific sampling and analysis of raw water supply and treated water.

6. Drinking Water Objectives Compliance Assessment and Enforcement

A comprehensive monitoring program, including regular sampling of treated water and recording of flows, will be undertaken by the works operating authority. This will permit assessment of compliance with the "Ontario Drinking Water Objectives" and, if necessary, initiation of appropriate remedial measures for works out of compliance.

The monitoring program requirements along with appropriate follow-up procedures for responding to adverse water quality analysis results, are described in the "Ontario Drinking Water Objectives - April, 1983 Edition". The Ministry, at its discretion, may assist in carrying out the monitoring program.

7. Variance from Policies and Guidelines

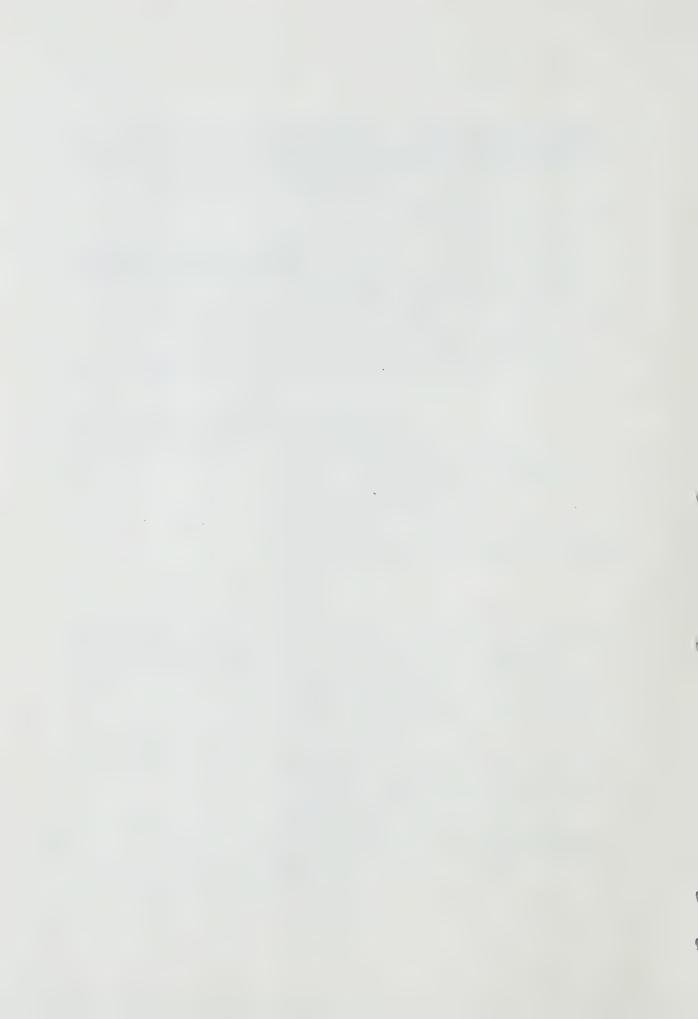
The concurrence of the Regional Director, and the Director of Water Resources Branch must be received before any variance from the policies listed in Sections 1.0-5.0 above and their related Guidelines is granted.

8. Additional References

The following Ministry publications will serve as reference documents pertaining to technical details of treatment processes and requirements.

- (a) "Guidelines for the Design of Water Treatment Works", April, 1982.
- (b) "Chlorination of Potable Water Supplies" Bulletin 65-W-4, March, 1980.

For details on the application for approval of water works, consult: "A Guide on Applying for the Approval of Water Works", January, 1978.



GUIDELINES FOR GRANTING A VARIANCE FROM THE TREATMENT REQUIREMENTS FOR MUNICIPAL AND COMMUNAL WATER WORKS USING SURFACE WATER SOURCES

A variance from the treatment requirements down to the minimum of disinfection may be permitted, but only after assessment of the water quality in relation to the Ontario Drinking Water Objectives together with social and economic factors has been considered and justified.

Whilst the Ministry recognizes the necessity of ensuring the protection of public health irrespective of system size, practicality determines the need for division of communal water works into two main categories. "Major" works are defined as those designed to serve a population equivalent of 500 persons or more. The remaining smaller systems are classified as "minor" works.

This eliminates as "major works" the large number of seasonal and "semi-public" supplies, which thus become governed by the guidelines for "minor works".

Two sets of guidelines have been developed reflecting two different approaches in the granting of variances from the treatment requirements:

- For "major" works, full treatment of coagulation filtration— disinfection must be provided unless an exemption can be justified.
- For "minor" works, disinfection must first be provided; subsequent investigation must be carried out to determine if the need for coagulation and filtration can be demonstrated.

While the aforementioned approaches are different administratively, their goals are the same - i.e., to produce potable water meeting the intent and the limits set out in the "Ontario Drinking Water Objectives" in the most cost-effective way.

The following guidelines should be adhered to when seeking treatment requirements variances on a case-by-case basis. While it is recognized that flexibility may be exercised in the application of these guidelines under special circumstances to suit local constraints, any deviation from these guidelines should be properly justified by the proponent and agreed to by MOE Regional staff.

(A) GUIDELINES FOR "MAJOR" WATER WORKS

(1) A public meeting should be held to discuss reasons for possible variation from treatment requirements. Risk assessment of possible transmission of waterborne diseases or other adverse health effects, because of deletion of any basic water treatment step should be addressed and data made available for discussion. It will be the responsibility of the proponent to publish Notices of the public meeting and to provide a suitable meeting hall so that all affected by the decision may be heard.

Guidance pertaining to public consultation should be obtained from the Ministry of the Environment.

- (2) The proponent must notify the Medical Officer of Health of the intent to seek a variance from treatment requirements and to solicit his/her opinions.
- A comprehensive sampling program must be done to (3) establish raw water quality variations. One year of water quality data should be gathered and the sampling program should be under the direction of Regional staff and no sampling should be undertaken by the proponent until this matter has been discussed thoroughly with Regional staff. Samples should be taken at the proposed intake location(s) and in the distribution system (for existing works). The parameters to be analyzed should be broadly based on the "Ontario Drinking Water Objectives - April, 1983 Edition" and be decided on co-operatively by the Regional Director and the Director of Water Resources Branch. Analysis for additional parameters may be required based on the local potential for contamination, or where there exists a known discharge or other situation likely to contribute contaminants.

Analyses should be completed by such methods, and under such conditions as recommended by the Regional Director, after consultation with other Branches of the Ministry of the Environment when needed. Responsibility for the sampling program rests with the proponent. The Ministry, at its discretion may assist in carrying out the sampling program.

Data from the sampling program together with the recommendations from the Regional Director, shall be submitted to the Director of the Environmental Approvals and Land Use Planning Branch in support

of the application for approval of the proposed undertaking as required under Section 23 of the Ontario Water Resources Act. The request for variance from treatment requirements must also have the concurrence of the Director of the Water Resources Branch.

- (4) A treatability study may be required. A preliminary plant layout should be prepared and designed in such a way so as to ensure that adequate land is available in the event that additional treatment components are needed in future.
- (5) The water intake is to be located to minimize possible impact of adjacent piped discharges and surface run-off.
- (6) Areas of shallow water frequented by large concentrations of wild life (e.g., beavers) are not acceptable as a source of supply where chlorination only is proposed to be used.
- (7) The proponent is to indicate how the source is to be protected and to indicate present drainage basin use and contemplated land use.

If a conditional approval is granted and a variance from treatment requirements allowed, the following conditions should be fulfilled:

- (a) Facilities should be provided to ensure freeresidual chlorination. It will be necessary to establish that free-residual chlorination can be carried out under all conditions.
- (b) The formation of total trihalomethanes should not exceed the maximum acceptable concentration as established in the Ontario Drinking Water Objectives.
- (c) A sampling and reporting program satisfactory to the Regional Director shall be undertaken and maintained by the operating authority in order to monitor raw and/or treated water quality to ensure that the water supply system is producing water of an acceptable quality at all times. The sampling program, if different from the routine program as specified in the Ontario Drinking Water Objectives document, may be written in the Certificate of Approval for the Works.

(B) GUIDELINES FOR "MINOR" WATER WORKS

(1) For all "minor" water works, variance from treatment requirements down to the minimum of disinfection will be permitted at the outset. Regional staff, however, may require higher levels of treatment on site-specific cases based on proper justifications.

The following conditions should be fulfilled when a variance from treatment requirements is allowed:

- (a) A comprehensive sampling program must be instituted under the direction of Regional staff to establish the treated water quality variation.
 Responsibility for the sampling program rests with the proponent. The Ministry, at its discretion, may assist in carrying out the sampling program. The sampling program may be written in the Certificate of Approval for the works. If data indicate an exceedance of the Ontario Drinking Water Objectives, particularly the health-related ones, appropriate actions, including installation of higher level treatment processes, will be required.
- (b) Common sense precautionary measures such as those stated in Items No. (4) to (7) of "GUIDELINES FOR MAJOR WATER WORKS" will apply.



POLICY TITLE TREATMENT REQUIREMENTS FOR MUNICIPAL AND COMMUNAL WATER WORKS USING GROUND WATER SOURCES

NO

15-15-01

Legislative Authority

the Ontario Water Resources Act (R.S.O. 1980) Section 7 (1)(d), Section 23 and Section 44

Statement of Principles

This policy describes the treatment that the Ministry will require at municipal and communal water works using ground sources for raw water supplies. It provides technical guidance to Municipalities and Ministry of Environment staff on the production of potable water from these sources.

This policy is written in support of Policy 15-06 of the Manual of Environmental Policies and Guidelines which deals with Drinking Water Quality in Ontario. The Policy applies to water works operated by municipalities and others as covered under the provisions of Section 23 of the OWR Act. The main function of these works is to treat raw water from ground sources to produce potable water.

Water originating from ground sources and transmitted with or without treatment to uncovered storage reservoirs is deemed not to be groundwater. Since such waters may be subject to similar contamination potentials as exist for surface water sources, this policy is not applicable in such cases, and the "Treatment Requirements for Municipal and Communal Water Works Using Surface Water Sources" Policy will apply.

Point of Contact

Drinking Water Section, Water Resources Branch

Effective Date

December 31, 1987

All guidelines referred to in this policy are available from Water Resources Branch or Regional Offices.

RATIONALE

Water for drinking, culinary, and other domestic uses should be safe, palatable and aesthetically appealing. It should be free from pathogenic organisms, and hazardous levels of chemical and radioactive substances. Other aspects, such as corrosivity, tendency to form incrustations, and excessive soap consumption due to hardness should be controlled on the basis of economic considerations as they can interfere with the intended domestic use of the water.

Groundwater is usually consistent in quality and less susceptible to natural or man-made pollution than surface water, but once contaminated, treatment is long term and problematical.

In order to achieve the intent, quality and characteristics set out in the "Ontario Drinking Water Objectives - April, 1983 Edition", certain treatment processes should be provided depending on the quality of raw water source.

To provide basic public health protection, the treatment of ground waters will consist of continuous disinfection.

1. Policy Objective

The objective of this policy is to protect the health of the public by ensuring that the quality of potable water produced from these works conforms to the intent and limits set out in the Ministry of the Environment's "Ontario Drinking Water Objectives - April 1983 Edition".

2. Ministry Requirements of Municipal and Communal Water Works

All water works shall have acceptable raw water supply, source protection and treatment processes to ensure that the potable water produced shall meet the intent and the limits set out in the "Ontario Drinking Water Objectives".

3. Acceptability of Raw Water Supply

A sampling program with adequate analyses should be carried out to establish the acceptability of the source supply and the raw water quality variations. These analyses will accompany the application for Certificate of Approval for water works. The sampling program must be under the direction of Regional staff. The parameters to be analyzed should be broadly based on the

"Ontario Drinking Water Objectives". In addition, analyses should include total Kjeldahl nitrogen, ammonia, nitrite*, nitrate*, calcium, magnesium, potassium and silica (and hydrogen sulphide where its presence is detected). Analysis for additional parameters may be required at the discretion of Regional staff based on the local potential for contamination, or where there exists a known discharge or other situation likely to contribute contaminants.

(*NOTE: Maximum Acceptable Concentrations of nitrite and nitrate are specified in the "Ontario Drinking Water Objectives").

Analyses should be completed by such methods, and under such conditions as recommended by the Regional staff, after consultation with other Branches of the Ministry of the Environment when needed. Results of the analyses will be made available to the public upon request.

Responsibility for the sampling programs rests with the proponent. The Ministry, at its discretion, may assist in carrying out the sampling program.

4. Level of Treatment

All water works in the Province of Ontario which utilize ground waters as a source of raw water shall be provided with a treatment process consisting of disinfection.

Chlorination equipment and operation shall conform to the requirements set out in the Ministry of the Environment document "Chlorination of Potable Water Supplies (Bulletin 65-W-4) - March, 1980 Edition". Other disinfection processes capable of producing potable water of equivalent or better quality will also be considered as acceptable alternatives.

4.1 <u>Variance from Treatment</u>
Requirements

Where it is considered that proper source protection exists and the source quality is such as to warrant a variance from the treatment requirements, exemptions may be recommended on a case-by-case basis, at the discretion of the Regional Director and in accordance with the Ministry's Guidelines listed below:

Guidelines for Granting a Variance from Treatment Requirements for Municipal and Communal Water Works Using Ground Water Sources.

4.2 Higher Treatment

Higher levels of treatment may be needed to ensure that the potable water shall meet the intent and the limits set out by the "Ontario Drinking Water Objectives". Higher levels of treatment shall be justified by more intensive and appropriate site-specific sampling and analysis of raw water supply sources.

5. Review of Treatment Requirements

The level of treatment required for individual water works shall be subject to periodic review by MOE Regional Offices as necessary, especially when expansions of water works are contemplated.

More stringent treatment requirements may be needed as justified by site specific sampling and analysis of raw water supply and delivered water.

6. <u>Drinking Water Objectives</u> Compliance Assessment and Enforcement

A comprehensive monitoring program, including sampling of delivered water and recording of flows, will be undertaken by the works operating authority. This will permit assessment of compliance with the "Ontario Drinking Water Objectives" and, if necessary, initiation of appropriate remedial measures for works out of compliance.

The monitoring program requirements along with appropriate follow-up procedures for responding to adverse water quality results, are described in the "Ontario Drinking Water Objectives - April, 1983 Edition". The Ministry, at its discretion, may assist in carrying out the monitoring program.

7. <u>Variance from Policies</u> and <u>Guidelines</u>

The concurrence of the Regional Director and the Director of Water Resources Branch must be received before any variance from the policies listed in Section 1.0-5.0 above and their related Guidelines is granted.

8. Additional References

The following Ministry publications will serve as reference documents pertaining to technical details of treatment processes and requirements.

- (a) "Guidelines for the Design of Water Treatment Works", April, 1982.
- (b) "Chlorination of Potable Water Supplies" Bulletin 65-W-4, March, 1980.
- (c) "Recommended Guidelines for Small Groundwater Supply Systems for Residential Developments" (by MOE-MEA Liaison Committee), July, 1977.

For details on the application of approval of water works, consult: "A Guide on Applying for the Approval of Water Works", January, 1978.



GUIDELINES FOR GRANTING A VARIANCE FROM TREATMENT REQUIREMENTS FOR MUNICIPAL AND COMMUNAL WATER WORKS USING GROUND WATER SOURCES

On a case-by-case basis, a variance from treatment requirements will be permitted, but only after assessment of the water quality in relation to the Ontario Drinking Water Objectives together with social and economic factors has been considered and justified.

The following guidelines should be adhered to when seeking a variance from treatment requirements. While it is recognized that flexibility may be exercised in the application of these guidelines under special circumstances to suit local constraints, any variance from these guidelines should be properly justified by the proponent and agreed to by MOE Regional staff.

- (1) A public meeting should be held to discuss reasons for possible variance from treatment requirements. Risk assessment of possible transmission of water-borne diseases or other adverse health effects because of deletion of any basic water treatment step should be addressed and data made available for discussion. It will be the responsibility of the proponent to publish Notices of the public meeting and to provide a suitable meeting hall so that all affected by the decision may be heard. Guidance pertaining to public consultation should be obtained from the Ministry of the Environment.
- (2) The proponent must notify the Medical Officer of Health of the intent to seek a variance from treatment requirements and to solicit his/her opinions.
- (3) A comprehensive sampling program must be developed to establish raw water quality variations. The sampling program must be under the direction of Regional staff and no sampling should be undertaken by the proponent until this matter has been discussed thoroughly with Regional staff.

The well should be pumped at its proposed production rate for at least 48 hours and samples collected for analysis at 12 hour intervals to obtain firm data and to detect possible trends in water quality and maximum contaminant concentrations. If sufficient data are already available with respect to quantity and quality (e.g., replacement well etc.), the pumping period and sampling may be reduced at the discretion of the Regional Director.

Parameters to be analyzed are to be decided on co-operatively by the Regional Director and the Director of Water Resources Branch, and should be broadly based on the "Ontario Drinking Water Objectives - April, 1983 Edition". Analysis for additional parameters may be required based on the local potential for contamination, or where there exists a known discharge or other situation likely to contribute contaminants.

Analyses should be completed by such methods, and under such conditions as recommended by the Regional Director, after consultation with other Branches of the Ministry of the Environment when needed.

Responsibility for data collection rests with the proponent. The Ministry, at its discretion, may assist in carrying out the sampling and analysis program.

Data from the sampling program, together with the recommendations from the Regional Director, shall be submitted to the Director of the Environmental Approvals and Land Use Planning Branch in support of the application for approval of the proposed works as required under Section 23 of the Ontario Water Resources Act. The request for a variance from the treatment requirements must also have the concurrence from the Director of Water Resources Branch.

If a conditional approval is granted and a variance from the treatment requirements allowed, the following conditions should be fulfilled:

- (a) A preliminary plant layout based on the provision of 15 to 30 minutes of chlorine contact time may have to be done to ensure adequate land is acquired in the event that disinfection is needed in future.
- (b) A sampling and reporting program satisfactory to the Regional Director shall be undertaken and maintained by the operating authority in order to monitor raw and delivered water quality to ensure that the water supply system is effective in producing water of an acceptable quality at all times. The monitoring program, if different from the routine program specified in the Ontario Drinking Water Objectives document, can be specified in the Conditional Certificate of Approval issued under Section 23 of the Ontario Water Resources Act.
- (c) Facilities must be provided with complete standby disinfection equipment and disinfecting chemicals storage except:
 - (i) At the discretion of the Regional Director, exemptions from the requirement to provide

complete standby disinfection equipment may be permitted in multi-well supply systems operated by the same authority. Typically, one portable complete standby system should be supplied for every four wells.

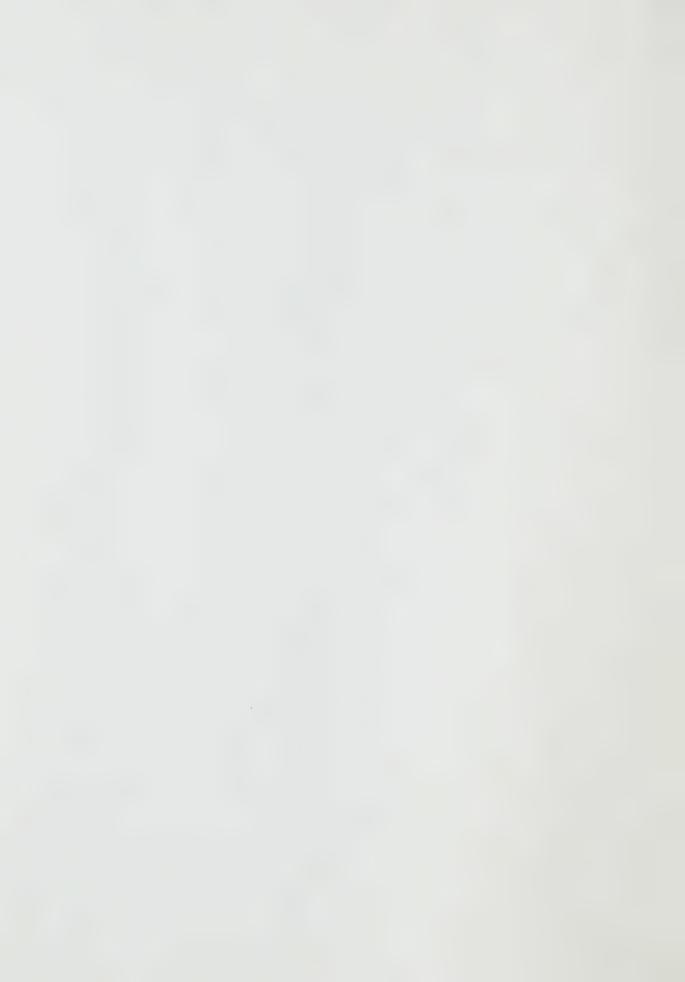
- (ii) At the discretion of the Regional Director and where exemption from providing disinfection equipment is obtained, exemption from providing on-site disinfecting chemical storage may be permitted in multi-well supply systems operated by the same authority, provided that approved disinfecting chemicals are readily available to that authority.
- (d) As a precautionary measure, disinfection should be carried out for a period of time sufficient to establish an accurate raw water bacteriological quality data base.













POLICY TITLE PUBLIC PARTICIPATION IN ENVIRONMENTAL STANDARD SETTING

NO

16-00-01

Legislative Authority

the Environmental Protection Act, Section 94

Statement of Principles

This policy is designed to assist the public to participate in the process of developing environmental standards that the Ministry administers in its programs to protect the environment. This policy is intended to delineate the procedures that will be employed to develop standards, guidelines, and regulations. The measures in this policy statement are intended as applications of the Ministry's Policy Development Process and Policy Approval Process to the task of environmental standard-setting. Detail on the Policy Development and Approval Processes is found in the MANUAL OF ENVIRONMENTAL POLICIES AND GUIDELINES, ppxii-xx.

Definitions

Policy Development Process

Policy development is the process whereby an environmental problem or issue is defined, appropriate action to meet the need is devised, and a draft policy statement is accepted by the Director of a Branch or Region. The stages of the Policy Development Process are described and diagrammed on pp. xii-xvi of the MANUAL OF ENVIRONMENTAL POLICIES AND GUIDELINES.

Point of Contact

Effective Date

Policy Approval Process

Policy approval is the process whereby the draft policy statement initially accepted by a Director receives a multi-staged analysis and review leading to final approval by the Minister, and the Cabinet where necessary. The stages of the Policy Development Process are described and diagrammed on pp. xvii-xx of the MANUAL OF ENVIRONMENTAL POLICIES AND GUIDELINES.

1. Policy Development Process

1.1 Problem or Issue

The need for standard-setting, either new standards or revision of current standards, is identified and communicated in writing to the Assistant Deputy Minister, Environmental Assessment and Planning Division.

1.2 Recommendation for Policy Development

The ADM will direct the Chairman of the appropriate Standards Setting Committee to begin the needed investigations.

 $\begin{array}{c} 1.3 & \underline{\text{Action by}} \\ & \underline{\text{Standard-Setting}} \\ \hline \text{Committee} \end{array}$

The Standard Setting Committee will establish a tentative standard and submit it with all required documentation to the ADM, Environmental Assessment and Planning Division.

1.4 <u>Distribution By</u> ADM

The tentative standards are distributed to all Ministry Branches and Divisions for comment.

1.5 Policy Options Assessed Policy options, based on review of tentative standards and MOE comments, are assessed.

2. Policy Approval Process

2.1 Policy Options Submitted Policy options are submitted by a Director to ADM, Environmental Assessment and Planning Division.

2.2 Review and Decision by Policy Committee

Policy options are reviewed and chosen by the Ministry Policy Committee.

2.3 Policy Review

Further policy review and development responsibilities are assigned to a Branch by the ADM.

2.4 Final Draft Policy

A final draft policy is submitted to the ADM.

2.5 Final Approval

Final approval of the policy is given by ADM, Deputy Minister, Minister, and Cabinet where necessary.

3. Publication

3.1 Regulations
Registrar's Office

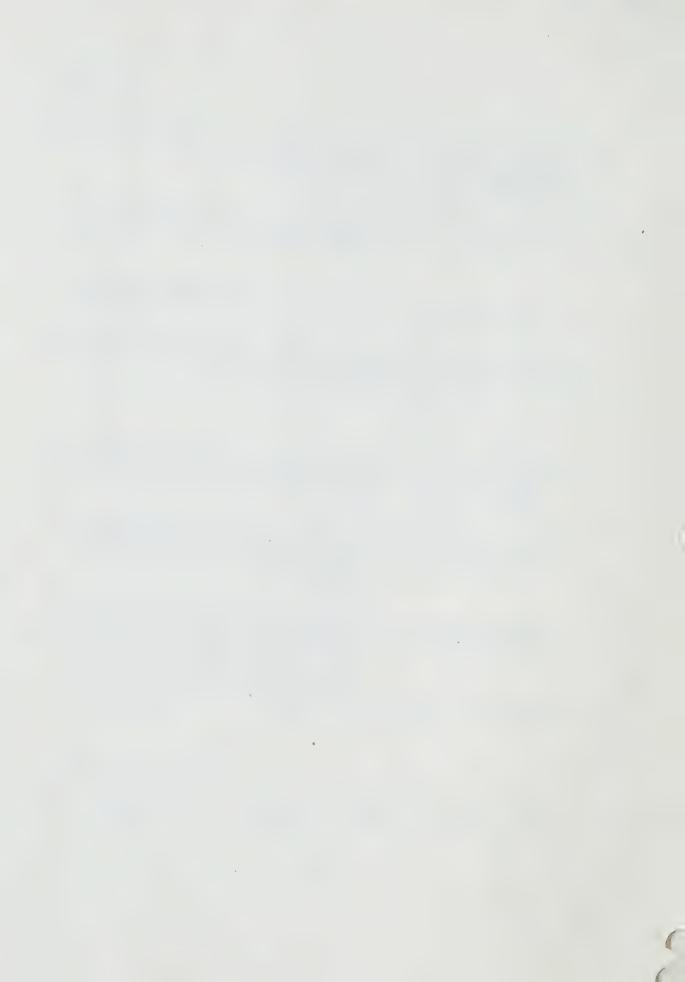
Simultaneously with 2.4 above, Legal Services Branch submits regulations to Registrar's Office.

3.2 Ontario Gazette

Publication in the <u>Ontario Gazette</u> takes place once regulations are approved by Cabinet.

3.3 <u>Policies and</u> Guidelines

Policies and guidelines normally will not require Cabinet approval. After final approval by the Minister they are distributed with the next batch of policies and guidelines for the MANUAL OF ENVIRONMENTAL POLICIES AND GUIDELINES.





POLICY/TITLE

RELEASE OF MINISTRY OF THE ENVIRONMENT SCIENTIFIC DATA AND REPORTS

NO 16-01-01

Legislative Authority

the Environmental Protection Act, Sections 3(f) & 130

the Ontario Water Resources Act, Section 7(d)

the Pesticides Act, Sections 2(e) & 19

the Environmental Assessment Act, Sections 27 & 32(e)

Statement of Principles

This policy provides for the release of validated scientific data and reports. The intent of the policy is to ensure that, within the shortest possible time, the public is properly informed of scientific findings in terms of data reliability, environmental significance, and public health implications. More detailed information is provided in the May 1983 report, "Ministry of the Environment Guidelines on Preparation for Release of Scientific Data and Reports."

1. Policy Statement

1.1 <u>Information</u> Release

It is the policy of the Ministry of the Environment that completed and properly validated scientific and technical data and reports are made accessible to the public within the shortest possible time.

November 12, 1986

Point of Contact

Director, Laboratory Services Branch

Effective Date

February 1, 1984

1.2 Administrative Requirements

Prior to the release of scientific data and reports, the administrative approval requirements set forth herein shall be followed.

2. Application

This policy applies to all scientific or technical data and reports including papers being presented by individual staff members at conferences or for publication, and abstracts for proposals to submit papers at conferences.

This policy does not apply to administrative reports, or to scientific or technical data or reports containing information which is of a proprietary or personal nature, or is subject to the confidentiality requirements of the Environmental Protection Act, the Pesticides Act, or the Environmental Assessment Act.

3. Authorization

3.1 Routine Data and Reports

The release of routine scientific data and reports, whether of a continuing or a special subject nature, shall require the approval of the Section Manager and the Branch Director.

3.2 Major Interest Data and Reports

Scientific reports and data of major interest require the Division Head's approval for release, and shall be accompanied by an explanation of data reliability, environmental significance, and public health implications.

3.3 Jointly Prepared Reports

Those portions of scientific reports prepared jointly with or for external groups including other government agencies require the approval of the Division Head prior to release.

4. MOE Staff Responsibility

MOE staff responsible for the release of scientific data or reports should ensure that, where appropriate, there is an adequate accompanying interpretation of the findings in terms of data reliability, environmental significance, and public health implications.

5. External Consultation and Notification

5.1 Ministries of Labour and Health

General

(a) When scientific data or reports contain findings with public health implications, MOE medical advisors at the Ministries of Labour and Health should be consulted prior to the release of the findings.

Exceptions

(b) When scientific data or reports contain findings with public health implications for which standardized interpretations previously have been provided as per 5.1 (a) above, then MOE medical advisors at the Ministries of Labour and Health should be advised prior to the release of the findings.

5.2 Medical Officer Of Health

The Medical Officer of Health should be advised and may be consulted on scientific findings with public health implications, prior to the release of the findings.

5.3 Other Agencies

When various levels of government have a shared interest or responsibility in the scientific findings, advance notice of the findings should be communicated.

6. Notification of Communications Branch

Prior to printing and release of all MOE scientific reports or the release of scientific data of major interest the Communications Branch should be notified in order that appropriate communications may be planned.

7. Publication of Reports

7.1 Authors Identified

The authors of scientific or technical reports may be identified.

7.2 Report Covers

Routine

(a) Routine scientific reports on special subjects that are approved for external distribution shall have a green cover with Ministry and branch identification and the name of the Branch Director.

Major Interest

(b) Scientific reports of major interest that are approved for external distribution shall have a green cover with the Ministry logo and the names of the Minister and Deputy Minister.

7.3 Copyright

All reports intended for external distribution shall contain the following in a prominent location:

© "19xx (year of first publication) Her Majesty the Queen in Right of Ontario"

and should indicate whom to contact for permission to republish, or should state the conditions under which the report or parts of it may be republished.

8. <u>Guidelines For Data And</u> Reports Release

Detailed information on the preparation, interpretation and release of scientific data and reports is provided in the "Ministry of the Environment Guidelines on Preparation For Release of Scientific Data and Reports, May 1983."



POLICY TITLE PREPARATION OF POLICY PROPOSALS TO CENTRAL AGENCIES

16-02-01

NO

Legislative Authority

N/A

Statement of Principles

The detailed proposal should, wherever appropriate, contain the following information:

1. Statement Of Problem

A concise statement of the problem or issue and degree of urgency;

2. Background Information

Relevant background information including reference to established policies in Ontario and other jurisdictions and answers to such questions as: Why is government action necessary? Who is affected? Who is protected, from whom?

3. Options

Optional courses of action with pros and cons; in submissions involving several issues it may be preferable, depending on the nature of the material, to deal with one issue at a time, from the statement of the problem through to and including the recommendations.

Rev. 2 - August 16, 1982

Point of Contact

Director, Policy and Planning Branch

Effective Date

June 19, 1980

4. Priority Of Proposal

The priority assigned to the proposal.

5. <u>Views Of Management</u> Board Comments of the Management Board Secretariat or the decision of Management Board; implications for other Ministries and/or agencies, with a clear indication that all necessary liaison has occurred. Special attention should be given to the broad responsibilities of the Ministry of Treasury and Economics and the Ministry of Intergovernmental Affairs.

6. <u>Legislative</u> Implications

Proposals should indicate existing acts or regulations affected or state whether new legislation will be required. Indicate whether the submission improves the regulatory process.

7. Economic Impact Evaluation

An economic impact evaluation which should indicate the effects of the new policy under the following headings:

7.1 Private Sector

Effects on the private sector

- (a) job creation/job loss;
- (b) effect on investment capital;
- (c) encouragement to the formation of new business;
- (d) duplication of the intent and functions of existing organizations;
- (e) effect on consumer prices:
- (f) reduction of the incentive to work; and
- (g) the cost of compliance.

7.2 Public Sector

Effects on the public sector

(a) effect on the government work force - man years and costs involved

(b) expenditure increases - effect on the Ministry's resource base.

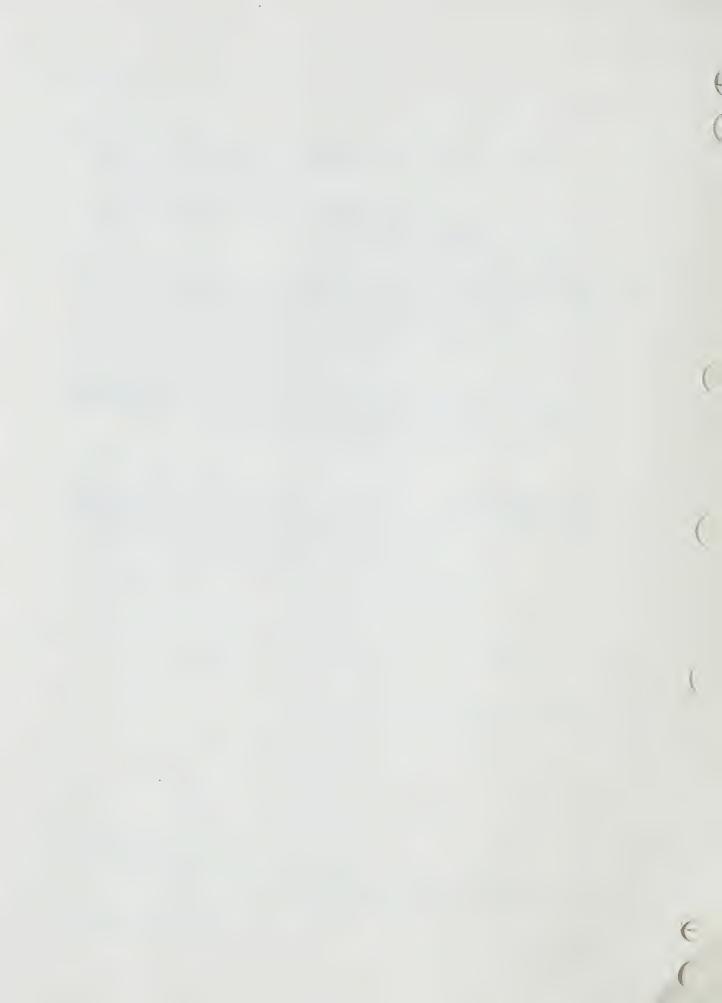
If there is no economic impact, a short paragraph should give reason for this position.

8. Communications Plan

A communications plan which should indicate the preferred date, method and place of public announcement. It should also state how different segments of the public are expected to react to the proposal and should summarize the scope, costs and scheduling of planned communication support such as publications, advertising, films, etc., which are intended to promote public understanding. Communications plans should be reviewed with the Communications Branch.

9. Role Of Policy and Planning Branch

Policy Proposals for submission to central agencies should be coordinated through the Policy and Planning Branch. In addition to the policy analysis role, this Branch will also assist with the preparation of the economic impact evaluation.





June 19, 1980

M.O.E. Policy Manual

NO POLICY TITLE PREPARATION OF REGULATION SUBMISSIONS 16-03-01 Legislative Authority N/A Statement of Principles Approval Of Management Regulations which have financial or Board administrative implications must have the prior approval of Management Board. 2. Information Required Draft regulations for review by the Regulations Committee must be accompanied by an information sheet providing: 2.1 Changes (a) underline new words or changes; (b) indicate the type of change in the right hand margin as follows: wc - word change sc - sentence change nc - numeric change np - new paragraph 2.2 Economic Impact An economic impact evaluation which should Evaluation indicate the effects of the new regulation under the following headings: Effects on the private sector Rev. 2 - August 16, 1982 Director, Policy and Planning Branch Point of Contact Effective Date

2.2.1 Private Sector

- (a) job creation/job loss
- (b) effect on investment capital
- (c) encouragement to the formation of new business
- (d) reduction of the intent and functions of existing organization
- (e) effect on consumer prices
- (f) reduction of the incentive to work
- (q) the cost of compliance

2.2.2 Public Sector

Effects on the public sector

- (a) effect on the government work force man-years and costs involved
- (b) expenditure increases effect on the Ministry's resource base.

If there is no economic impact, a short paragraph should give reason for this position.

2.3 Effects On Regulatory Process

An explanation of effect of the proposed regulation on the improvement of the regulatory process, with answers to the following questions:

2.3.1 Need for Regulation

What is the public policy or abuse that makes the regulation necessary for the public benefit?

2.3.2 Alternatives To Regulation

Can the purpose be accomplished without the regulation or any part of it?

2.3.3 Duplication

Are there any provisions that duplicate existing provisions elsewhere that are applicable and sufficient?

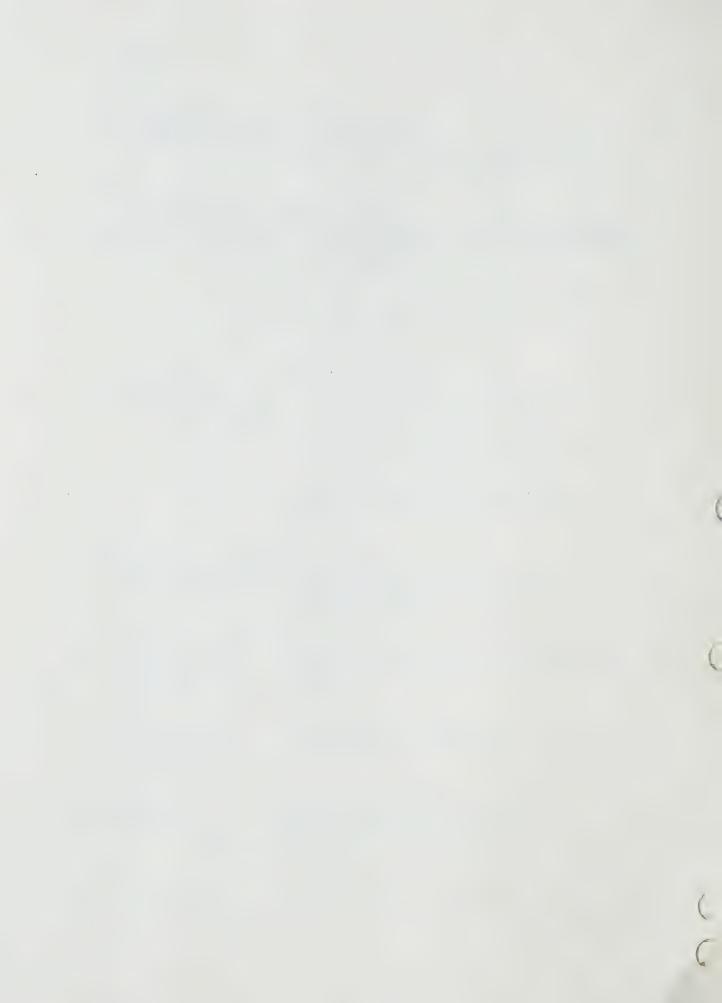
2.3.4 Excess Detail

Are there any provisions that are more detailed or particular than is necessary to accomplish the main purpose?

3. Role Of Policy and Planning Branch

Policy and Planning Branch will assist with and will be available for consultation concerning the economic impact evaluation and the explanation on improving the regulatory process.

Rev. 2 - Aug. 16, 1982





June 19, 1980

M.O.E. Policy Manual

NO POLICY TITLE 16-04-01 PREPARATION OF LEGISLATION SUBMISSIONS Legislative Authority N/A Statement of Principles Proposals for legislation should, wherever appropriate, contain the following information: The general purpose and objectives; Purpose Effects on or changes to present policies and Effects on Present 2. practices, possible improvements to the Policy regulatory process, and answers to the following questions: What public policy or abuse makes the 2.1 Need For legislation necessary for public benefit? Regulation Can the purpose be accomplished without the 2.2 Alternatives To legislation or any part of it? Regulation Rev. 2 - August 16, 1982 Director, Policy and Planning Branch Point of Contact Effective Date

2.3 <u>Duplication</u>

Is there duplication of existing provisions elsewhere that are applicable and sufficient?

2.4 Excess Detail

Are any provisions more detailed or particular than is necessary to accomplish the main purpose?

3. Reference to a Commission or Committee

Whether the proposals implement recommendations of any commission or committee;

4. Consultation

The nature of consultations with, and comments of, any groups or associations that the legislation may particularly affect;

5. Legislative Priority

Priority within the Ministry's legislative program;

6. Economic Impact Evaluation

An economic impact evaluation which should indicate the effects of the new legislation under the following headings:

6.1 Private Sector

. Effects on the private sector

- (a) job creation/job loss;
- (b) effect on investment capital;
- (c) encouragement to the formation of new business;
- (d) duplication of the intent and functions of existing organizations;
- (e) effect on consumer prices;
- (f) reduction of the incentive to work:
- (g) the cost of compliance:

6.2 Public Sector

Effects on the public sector

- (a) effect on the government work force man-years and costs involved
- (b) expenditure increases effect on the Ministry's resource base.

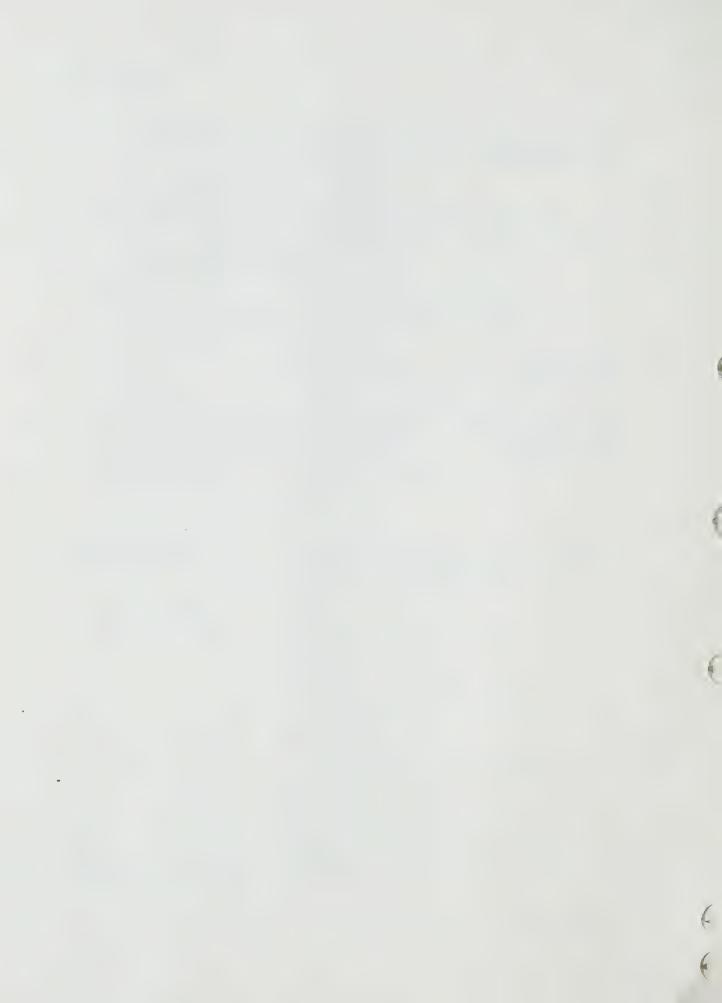
If there is no economic impact, a short paragraph should give reasons for this position.

7. <u>Legislation in other</u> <u>Jurisdictions</u>

Similar legislation in other jurisdictions where appropriate.

8. Role of Policy and Planning Branch

Policy and Planning Branch will assist with and will be available for consultation concerning the economic impact evaluation.





POLICY TITLE GUIDELINES AND PROCEDURES FOR RESEARCH AND TECHNOLOGY BRANCH ADMINISTERED PROJECTS

NO

16-05-01

Legislative Authority

N/A

Statement of Principles

This policy statement summarizes the methods used by the Ministry to select, approve, and administer projects supported by the Research Advisory Committee.

1. Objectives Of Program

To facilitate through well defined research projects the solution of significant or urgent problems related to the environment and related human health effects and protection.

2. <u>Kinds of Projects</u> Supported Financial support will primarily be directed towards investigating problems associated with the natural environment and human health protection.

Other practical and cost effective projects may be considered. These include:

(a) providing a mechanism to reduce an environmental risk factor where public health is potentially in peril.

Point of Contact

Director, Research and Technology Branch

Effective Date

May 11, 1987

4.2 RAC Membership

Members of the RAC:

- (a) a representative, generally at the director level, from each of the following - Air Resources Branch; Water Resources Branch; Waste Management Branch; Laboratory Services Branch; Approvals Branch; Policy and Planning Branch; Approvals and Engineering Division; Hazardous Contaminants Branch; Research and Technology Branch;
- (b) two representatives from the Regional Operations Division;
- (c) two representatives from the Intergovernmental Relations and Strategic Projects Division;
- (d) Ex Officio member(s) from other agencies involved in the support of environmental and health protection research, as recommended by RAC, and approved by the Division Head;
- (e) a representative from Environment Canada.

4.3 RAC Review Coordinators

The RAC will appoint review coordinators for each research area to assist with identifying research priorities, reviewing proposals, recommending projects for approval, and providing assistance in administering the research program.

Recommended projects will be reviewed by the Executive Director, Corporate Resources Division for final approval.

4.4 Project Control And Reporting

Liaison Officers will be appointed for each project to perform monitoring and control activities.

Investigators will provide regular progress reports and a final report for each project, in accordance with a formal, signed contract.

4.5 Records

The RAC will maintain records suitable for audit purposes for each project.

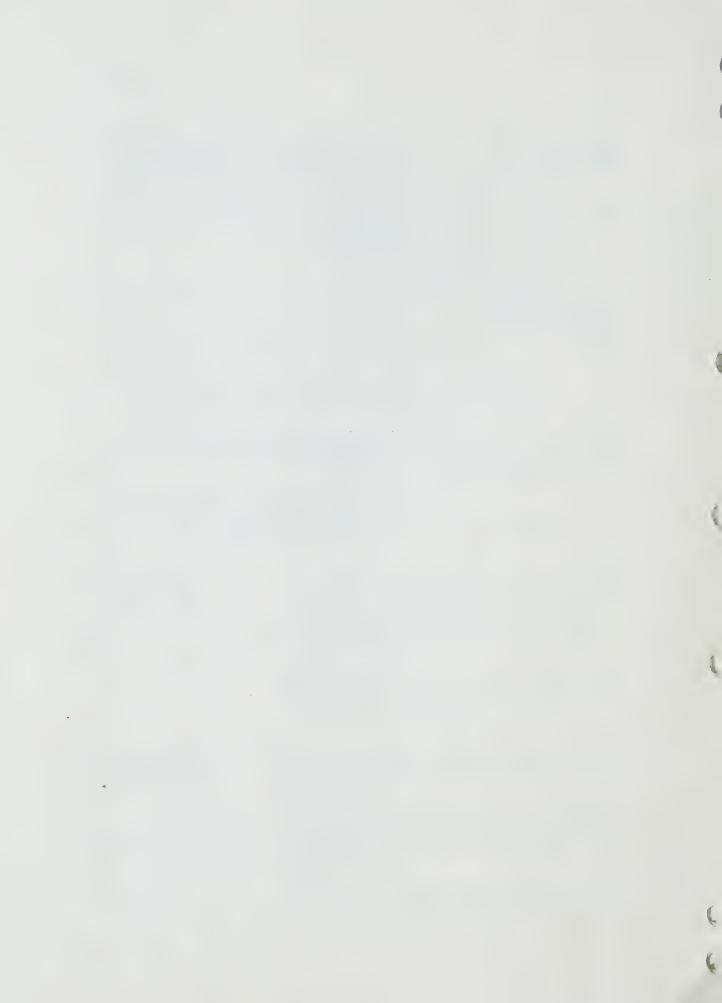
5. <u>Project Review and</u> Assessment

Each project will be assessed by intensive review of the liaison officer's reports, the project investigator's interim reports, and by subjecting the final report to scrutiny by a peer committee as required. A review process will be applied before recommendations for successive years funding are made by the RAC.

6. <u>Utilization and</u> <u>Implementation of</u> Results

The RAC will be responsible for the following activities:

- (a) appropriate publication of results;
- (b) facilitation of access to outputs or benefits of research by interested public and private groups;
- (c) drafting recommendations with the relevant Ministry branches and regions for future MOE action;
- (d) encouraging the utilization of research results and application of developed technologies towards the solution of environmental problems.





POLICY TITLE

POLICY FOR PUBLIC ACCESS TO INVITED SUBMISSIONS

16-06-01

NO

Legislative Authority

the Environmental Protection Act, Sections 3(f) and 130

the Ontario Water Resources Act, Sections 7 (d)

the Pesticides Act, Sections 2(e) and 19

the Environmental Assessment Act, Sections 27 and 32(e)

Statement of Principles

This policy provides for public access to invited submissions received by the Ministry. The intent is to facilitate the public consultation process in order to best fulfill the Ministry's Corporate mandate.

1. Policy Statement

1.1 Access to Submissions

It is the policy of the Ministry of the Environment that all submissions received by the Ministry in response to an invitation for comment shall be available to the public, as submitted.

1.2 Administrative Requirements

The administrative responsibilities set forth herein shall be followed to ensure implementation of this policy.

2. Application

This policy applies to all invited submissions the Ministry receives from the public, industry, government agencies, interest groups and others, to provide comment on proposals by the Ministry on policy issues (in the form of documents such as Green Papers or White Papers), environmental objectives, source emission standards and criteria, and environmental guidelines.

February 1, 1984

Point of Contact

Director, Communications Branch

Effective Date

February 1, 1984

This policy does not apply to invited submissions containing information which is deemed to be of a proprietary or personal nature, or is subject to the confidentiality requirements of the Environmental Protection Act, the Pesticides Act, or the Environmental Assessment Act.

3. Administrative Responsibilities

3.1 Public Notification

At the time at which the Ministry invites submissions on policy issues, environmental objectives, source emission standards and criteria, and environmental guidelines, there shall be a public announcement of the Ministry's policy of providing public access to all submissions.

3.2 <u>Submission</u> <u>Availability</u> Invited submissions shall be made available at Ministry Corporate and Regional Offices, and at Ministry District Offices, where appropriate.

3.3 Availability of Submission Summaries

Where summaries of invited submissions have been prepared, these shall be made available as per 3.2 above, and also may be distributed, where appropriate, to public libraries, other government agencies, and upon request to parties with an interest in the issues under consideration.

4. Role of Communications
Branch

In conjunction with other appropriate Branches, the Communications Branch shall plan and implement appropriate communications, as per 3 above. Detailed procedures are provided in the October, 1983 "Communications Procedures for Invited Submissions".



POLICY TITLE

INTERIM POLICY ON PUBLIC ACCESS TO REPORTS FROM EXTERNAL PARTIES:

NO 16-07-01

Legislative Authority

the Environmental Protection Act the Ontario Water Resources Act the Environmental Assessment Act the Pesticides Act

Statement of Principles

This policy provides for public access to reports, as defined, that the Ministry of the Environment receives pursuant to its environmental legislation.

The intent of the policy is to ensure access to externally provided reports in accord with the principles of freedom of information and protection of individual privacy, while at the same time respecting public access, confidentiality and privacy requirements of the Ministry's legislation.

The policy will apply until such time as Freedom of Information and Protection of Individual Privacy legislation is enacted.

Definitions

External Parties

External parties are considered to be any organization, company, agency or individual submitting a report pursuant to the Ministry's role in the management of emissions to the natural environment.

February 13, 1987

Point of Contact

Director, Policy and Planning Branch

Effective Date

February 6, 1987

Report:

A report is any document submitted directly to the Ministry by an external party which quantifies any contaminant or material deposited or emitted, or proposed to be deposited or emitted to the natural environment, or which describes measures to contain or control such contaminant or material.

Major Interest Reports:

Major interest reports are those which detail significant public health or environmental issues.

Policy Statement

The Ministry of the Environment will provide the public with access to reports submitted directly to the Ministry by external parties. Directors in receipt of reports are expected to exercise judgement and discretion in applying this policy.

2. External Report Preparations

External reports, other than prescribed forms, should be prepared to facilitate public access and the protection of confidentiality and personal privacy as follows:

2.1 Report Format

Ministry staff should request external parties submitting reports to prepare them in such a format that any information for which they may make a claim of confidentiality or privacy not be included in the body of the report but be provided as a separate appendix.

2.2 <u>Certification of Confidentiality Claim</u>

Parties making confidentiality or privacy claims shall be expected to specify in writing as part of the document:

- a) what information is to be kept confidential or private;
- b) the rationale for the claim;

- what legislation authorizes the claim;
 and
- d) what consequences would likely follow from access to the information.
- 3. Examination of Confidentiality Claims
- (a) The Director in receipt of an external report including a confidentiality or privacy claim is encouraged to consult with the Director of Legal Services Branch where, in his/her discretion, such consultation would be beneficial and shall consult with the Director of Legal Services Branch where the factors relating to the claim are complex or unclear.
- (b) If the claim is accepted either initially by the Director in receipt of the report or after the consultation referred to in (a) then no further action regarding the claim is necessary;
- (c) If the claim is rejected then the Director in receipt of the report is authorized to:
 - provide for public access to the portion of the report not in dispute;
 - advise the external party of the Director's intention to provide public access to any portion of the appendix for which a privilege claim has been denied unless within 30 days further valid argument can be made in support of the privilege claim;
- (d) If there is a difference of opinion between the Director in receipt of the report and the Director of Legal Services, then the Division Head is to be apprised of the issue to be resolved.

4. Ensuring of Public Access

4.1 Routine Reports

The Director will ensure public access to all routine reports, except to those portions of which the external party makes a valid claim pursuant to 3 above.

The document or copies of same will be available for public inspection at the relevant District or Branch Office.

4.2 Major Interest Reports

The Director will determine whether a report is of major interest.

Where a report is considered by the Director to be of major interest a Ministry notification will be prepared by the Communications Branch including:

- a) an announcement that the report has been received by the Ministry;
- an announcement describing where and when the report can be examined by the public; and
- c) future Ministry action regarding the report where appropriate.

The Communications Branch will plan appropriate communications activities and be responsible for the release of the MOE notification regarding external reports of major interest.



May 11, 1987

M.O.E. Policy Manual

NO POLICY TITLE RESEARCH MANAGEMENT PROCESS 16-08-01 Legislative Authority the Environmental Protection Act Statement of Principles This policy statement confirms the approach used by the Ministry in the planning and management of internal and externally funded research and outlines its major components. 1. Definition of Research Research is defined as an investigative study undertaken on a systematic basis to increase the available store of scientific and technical knowledge, and the use of this knowledge in new applications and problem solving. Routine monitoring programs, technical surveys and the implementation of abatement measures are, by definition, excluded from the research category. Director, Research and Technology Branch Point of Contact Effective Date

2. Major Steps in Ministry's Research Management Process

There are three significant steps in the annual research management cycle:

- (a) Identification of Research Requirements and Development of Research Priorities;
- (b) Evaluation of Proposed Research and Allocation of Resources; and
- (c) Technology Transfer.

Details on the organization of information flows, timeframe for activities under each step, membership and terms of reference for the Research Advisory Committee and support network are provided in the attached policy guideline entitled "Research Management Process".

RESEARCH MANAGEMENT PROCESS

ONTARIO MINISTRY OF THE ENVIRONMENT

Policy and Planning Branch
April 1987

TABLE OF CONTENTS

	Page No.
INTRODUCTION	1
DEFINITION OF RESEARCH	2
RESEARCH PLANNING AND MANAGEMENT CYCLE	3
Step 1: Identification of Research Requirements and Development of Research Priorities	4
Step 2: Evaluation of Proposed Research and Allocation of Resources	6
Step 3: Technology Transfer	8
INFORMATION AND DOCUMENT FLOWS	10
RESEARCH ADVISORY COMMITTEE - MEMBERSHIP	11
TERMS OF REFERENCE	
. RESEARCH ADVISORY COMMITTEE	12
. RESEARCH MANAGEMENT OFFICE	13
. REVIEW COORDINATORS	14
PROJECT LIAISON OFFICERS	1.5

INTRODUCTION

The purpose of this document is to outline the major steps, organizational responsibilities and timing of the Ministry's Research Management Process.

The Research Management Process ensures the identification of research needs and priorities and that the designated resources are appropriately allocated. This will be achieved by the process through integration with the Ministry's Strategic Plan. Specifically, the Research Management Process will ensure that:

- internally and externally conducted research is consistent with the Ministry's policies, goals and objectives;
- research expenditures are consistent with research priorities;
- research is undertaken by and administered with the appropriate Branches, Regions, Boards and Advisory Committees;
- . resources are allocated based on Ministry priorities;
- multi-branch research programs are appropriately coordinated;
- research findings are disseminated in a reasonable timeframe and that their implementation is encouraged; and that
- . research performance is evaluated against project objectives and for adherence to the planned timeframe.

The Ministry's research program comprises both:

- internal research projects which are conducted by appropriate Branches or Regions with in-house budget and resource allocations; and
- . external research projects (solicited and unsolicited) which are conducted by universities and consultants and which are generally supported by grant and contract awards respectively.

The Ministry's research program does not, however, include projects coordinated by the Acid Precipitation in Ontario Study Office. Such projects are approved and funded independent of the Ministry's formal Research Management Process.

DEFINITION OF RESEARCH

Research is defined as an investigative study undertaken on a systematic basis to increase the available store of scientific and technical knowledge, and the use of this knowledge in new applications and problem solving.

Routine monitoring programs, technical surveys and the implementation of abatement measures are, by definition, excluded from the research category.

RESEARCH PLANNING AND MANAGEMENT CYCLE

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OPERATIONAL PLANNING

WORK PLAN DEVELOPMENT

Step 1.

Identification
of Research
Requirements and
Development of
Research
Priorities

Step 2.

Evaluation of Proposed Research and Allocation of Resources

Step 3 Technology

Transfer

OUTPUT:

"SCIENTIFIC RESEARCH NEEDS"

"RESEARCH PLAN"

"RESEARCH AND DEVELOPMENT INVENTORY"

TECHNOLOGY TRANSFER CONFERENCE

ONGOING:

Review of research performance, project reports and publications, and the usefulness of research results.

IDENTIFICATION OF RESEARCH REQUIREMENTS AND DEVELOPMENT OF RESEARCH PRIORITIES STEP 1:

nerated from various Needs document for the	ACTIONS/RESULTS	. Updated Research Needs document Tentative budget allocations Tentative Research Plan.	Approval by senior management. Publish and distribute "Scientific Research Needs"
given to information gel funds and the Research l	INPUTS	Current year's research needs MOE Research Inventory CCREM research priorities OPAC research priorities allocation Internal research capacity	workshop
rmined. Consideration is he allocation of research	RESPONSIBILITY	Review by Coordinators and Research Advisory Committee (RAC)	Research Management Office (RMO)
Research requirements and priorities are determined. Consideration is given to information generated from various sources to establish a tentative budget for the allocation of research funds and the Research Needs document for the forthcoming fiscal year.	ACTIVITY	One day workshop to set Branch/Region research needs and priorities for the forthcoming fiscal year. Usefulness of research results and progress from past and ongoing research will be assessed in establishing updated scientific research needs.	Research Needs" document.
Description:	TIMEFRAME	IA September	1B November

INPUTS ACTIONS/RESULTS	Comments and . Ongoing dynamic suggestions concerning process management. operation					Strategic plan . Contemporary Workshop driving force activity Management Process.
RESPONSIBILITY	Liaison Officers; Review Coordinators; RMO; RAC.					, RMO
ACTIVITY	Feedback from liaison officers, review coordinators, line and senior management should be forwarded through the Review Coordinators to the RMO and if necessary to the RAC.	Feedback should include:	. current or required research projects;	. process/procedural problems; and	. other matters worthy of consideration.	Complete and separate review of "Scientific Research Needs" document.
TIMEFRAME	1C Ongoing					1D 3-5 year intervals

EVALUATION OF PROPOSED RESEARCH AND ALLOCATION OF RESOURCES STEP 2:

.Description:	Proposals are reviewed for technical merit a be considered subsequent to the setting of r competing proposals for available funding. research projects.	and consistency with identified research needs. Innovative proposals may research priorities. Favourably reviewed proposals are measured against Final allocations of resources are determined for internal and external	lresearch needs. y reviewed proposa are determined fo	identified research needs. Innovative proposals may Favourably reviewed proposals are measured against resources are determined for internal and external
TIMEFRAME	ACTIVITY	RESPONSIBILITY	INPUTS	ACTIONS/RESULTS
2A January/ June	Submission deadlines (January 15 and June 15). Classification and distribution of	RMO	New proposals; Previously approved	Dissemination of proposals for technical review.
	by appropriate reviewers. The June deadline will include second priority proposals identified at the April RAC meeting.		projects which extend beyond one year.	
2B February to March/ July to August	Review of proposals against recognized research needs and proposal evaluation criteria.	Review coordinators . and technical reviewers .	"Scientific Research Needs" Proposals Review criteria	Recommendations to RMO.
2C April/ September (1)	Review of proposals and recommendations for approval.	RAC RMO	MOE policy and strategic plan "Scientific Research Needs" Coordinators review Tentative budget allocation	Senior Management approval.

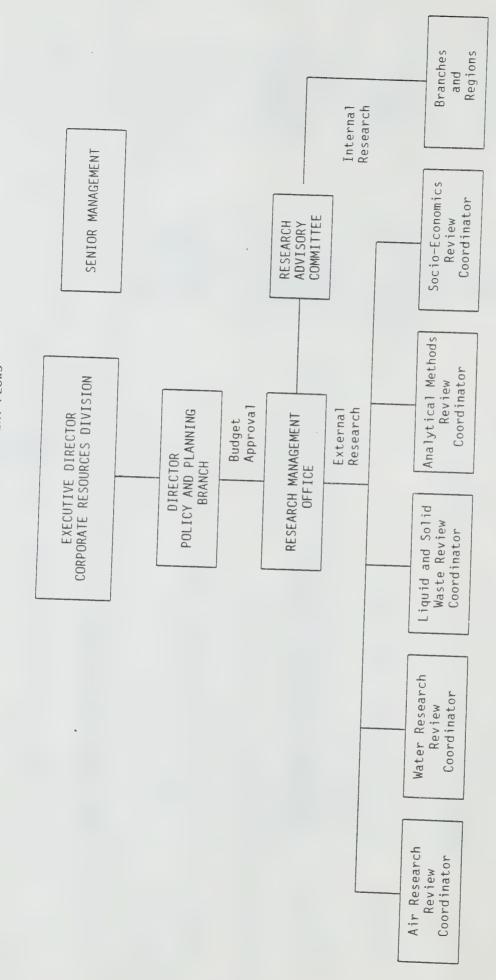
ACTIONS/RESULTS	Report to Division Heads with tentative research plan.		Revised Policy and Procedures and distribute accordingly.	Publish and distribute "Guidelin for Submission of Research Proposals"
INPUTS	April approved proposals; "Scientific Research Needs"; Tentative budget (required resources)		Feedback from process users RMO Others	Past guidelines User feedback Other proposal submission guidelines
RESPONSIBILITY	RMO	Management Committee	RAC, RMO and Review Coordinators	RMO
ACTIVITY	Prepare Annual Research Plan on basis of January deadline proposal review.	Review and Approval of Annual Ministry Research Plan and required resources.	Evaluation of Research Management Process, problems and procedures. One-day workshop. Revise Procedures and Policy documents.	Revise Guideline for Proposal submissions.
TIMEFRAME	2D May	2E May to June	2F June	2G November

STEP 3: TECHNOLOGY TRANSFER

TIMEFRAME	ACTIVITY	RESPONSIBILITY	INPUTS	ACTIONS/RESULTS
3A January	. Presentation of past years TTC results to Division Heads	RMO	. TTC file - program - feedback	Approval for next year's TTC and feedback.
3B January to October	Technology Transfer Conference (TTC) preparations*	RMO	. Previous year's . conference file	Tender for conference
	 tentative hotel bookings (January) prepare RFP and tender for Conference Management contract (March) 		Legal services Purchasing services Received tenders	proceedings administration. Award contract.
	TTC Steering Committee meeting (March)	RMO	. Feedback from last year's TTC	Proposed Program Committee membership.
	Submission of preliminary lists of proposed papers and poster sessions to RMO (May)	Liaison Officers and Review Coordinators Conference Program Committee	. Consent from principal investigators	
	Final selection of papers and poster sessions and notification of principal investigators (June to July)	Conference Steering Committee and RMO	. Proposal list .	Tentative proceedings.

The list of events related to the TTC is not exhaustive nor is it intended to be.

TIMEFRAME	ACTIVITY	RESPONSIBILITY	INPUTS	ACTIONS/RESULTS
	Organize publications and presentations for TTC, prepare advance program (July-August)	RMO Conference Program Committee	. Tentative program; Communications Branch	Distribute advance program
3C August- October	Compilation of past year's funded research by category, internal/external and duration	RMO	Research Summary Reports	Development of Research Inventory
3D October	Complete and present "Scientific Research and Development Inventory" to Management Committee.	RMO/ Director, Policy and Planning Branch	Branches and Regions; Review Coordinator; RAC;	Publish and distribute "Scientific Research and Development Inventory"
3E November	Review and printing of abstracts, papers, keynote speeches and proceedings for TTC	RMO; Review Coordinators; Liaison Officers	Speeches/ abstracts and papers from conference presenters	Distribution of materials prior to and at TTC.
3F December	Technology Transfer Conference proceedings	RAC RMO Communications Branch Conference Steering Committee Review coordinators		Dissemination of research results



FOOTNOTE: Lines do not indicate Ministry organizational structure; Lines represent information and document flows.

RESEARCH ADVISORY COMMITTEE MEMBERSHIP

Chair: Coordinator, Research Management Office Policy and Planning Branch

Executive Director, Approvals and Engineering

Director, Air Resources Branch

Director, Hazardous Contaminants Branch

Director, Laboratory Services Branch

Director, Waste Management Branch

Director, Water Resources Branch

Director, Southwestern Region

Director, West-Central Region

Director, Policy and Planning Branch

Coordinator, Intergovernmental Relations

Coordinator, Acid Precipitation in Ontario Study

Director, Environmental Approvals and Land Use Planning Branch

Regional Director, Ontario Region, Environment Canada

Ex Officio Member: Vice-Chairman, Pesticides Advisory Committee

RESEARCH ADVISORY COMMITTEE

TERMS OF REFERENCE

- 1. To formulate and obtain approval for Ministry research planning and management policy.
- 2. To develop, update and implement procedures for the management and evaluation of research activities.
- 3. To define research needs, establish priorities and develop a research strategy, recommending the types of research to be undertaken by the appropriate Branches, Regions, Boards and Advisory Committees.
- 4. To annually recommend levels of resources which the Ministry should devote to research activities, and to promote adequate funding levels for the Ministry's ongoing research requirements and priorities.
- 5. To review research proposals and select and make recommendations to support suitable, high quality proposals submitted by external institutions and agencies, and by Ministry Branches, Regions, Boards and Advisory Committees.
- 6. To develop and update procedures for the early dissemination of research findings and to foster their implementation.
- 7. To ensure that research activities are consistent with Ministry policies, goals and objectives.

RESEARCH MANAGEMENT OFFICE TERMS OF REFERENCE

- 1. To coordinate the identification and evaluation of the research needs of the Ministry.
- To coordinate and administer the planned development of the Ministry's internal and external research programs conducted through various branches, regions, advisory committees and external institutions and agencies.
- 3. To chair and provide administrative support for the Research Advisory Committee.
- 4. To coordinate the activities of the Research Areas and review coordinators for Air, Water, Analytical Methods, Liquid and Solid Waste, and Socio-Economics in their roles of providing technical support and research planning input for the Ministry.
- 5. To monitor externally funded research performance.
- 6. To encourage the application of research results obtained through Ministry sponsored projects and reports to policy formulation and technology transfer.

REVIEW COORDINATORS

TERMS OF REFERENCE

- 1. Based on input from appropriate staff and utilizing the best available expertise, the review coordinator's role is:
 - (a) to make recommendations on the research requirements in his or her respective program area and to recommend research priorities;
 - (b) to coordinate the technical review of research proposals submitted for funding by external institutions and agencies;
 - (c) to make recommendations, based on the reviewers' comments, on the technical merit of submitted research proposals;
 - (d) to make recommendations on the suitability of internal and external research proposals relative to established Ministry research priorities.
- 2. To nominate a knowledgeable liaison officer for each project in their respective areas, and to ensure that the liaison officer is apprised of his or her responsibilities with respect to project progress, budget and performance monitoring.
- 3. To provide technical support to the Research Advisory Committee and/or the Research Management Office as required.

PROJECT LIAISON OFFICERS

TERMS OF REFERENCE

The Liaison Officer is appointed by his/her Branch/Regional Director with the approval of RAC and is committed to project management duties which include:

- 1. Preparation of:
 - (a) Terms of Reference and Request for Proposal for tendered projects;
 - (b) Contract or grant letter of agreement;
 - (c) Work schedule for grant or contract projects;
 - (d) Comments on the news release prepared by Communications Branch.
- 2. Chairing a Steering Committee for projects which receive funding in excess of \$100K per year.
- 3. Provision of effective liaison between MOE and Project Investigator.
- 4. Obtaining interim and final reports, and papers to be presented at MOE's Technology Transfer Conference and conducting an evaluation of same.
- 5. Requesting statements of expenditure/cash flow from universities and consultants prior to end of each MOE fiscal year, and presenting it with recommendations for continuation or termination of funding to the Research Management Office.
- 6. Authorization of contract invoices and obtaining Research Management Office approval of payment.
- 7. Obtaining through Research Management Office, approvals for any changes to a project plan or schedule.
- 8. Maintaining a list of major equipment purchased from grant/contract funds and ensuring its transfer together with the developed technology to MOE, or loaning to project investigator(s).
- 9. Making presentations at RAC or other MOE committees on final reports or project progress when requested.

- 10. Preparing project Scientific Research and Development Inventory forms.
- 11. Responding in cooperation with Communications Branch to public and media inquiries on project findings.
- 12. Recommending the means for technology transfer and utilization of project results as well as further research needs emerging from the project.



Effective Date

February 16, 1989

M.O.E. Policy Manual NO POLICY TITLE PUBLIC CONSULTATION 16-09-01 Legislative Authority the Environmental Protection Act the Ontario Water Resources Act the Environmental Assessment Act the Pesticides Act Statement of Principles The Ministry's policy to consult with the public is an integral part of its mandate because such consultation: allows the Ministry to take into consideration the public's views and priorities; improves the quality and effectiveness of environmental decisions; and enhances the public's understanding of environmental issues and activities. Definitions Public Any person or group, and on any given issue could include: municipalities; industry; community, professional and corporate interest groups; or individuals. Point of Contact Director, Policy and Planning Branch

Public Consultation

A process involving interactive or two-way communication between the Ministry and the public, through which both become informed about different perspectives on issues and proposals, providing the public with the opportunity to influence decisions to be made by the Ministry.

Public Information

A more narrowly defined process through which the Ministry provides relevant and timely information to the public.

Public Consultation Principles

Public consultation activities undertaken by the Ministry will be guided by the following principles:

- 1. Public consultation will emphasize consensus building.
- 2. The Ministry will carry out public consultation processes in an objective, open, fair and responsible manner, within reasonable time frames and with consideration of cost to both the public and the Ministry.
- 3. Public consultation requirements will be incorporated into the decision-making process of the Ministry. In the evaluation of public input leading to decisions, a number of factors will be considered such as:
 - . relationship to government policy,
 - . local, regional and provincial interests,
 - technical feasibility,
 - . potential impacts of positions on all those who may be affected.
- 4. The objectives and scope of each consultation process will be clarified at the outset with respect to how and when the public can participate.
- 5. The public will be provided with a response outlining how its input was considered in the Ministry's final decisions.

Consultation With Other Senior Government Agencies

The Ministry also consults with Ontario Ministries and agencies and with ministries and departments of other provinces and the federal government, and government jurisdictions in the United States.

Role of Proponents

The Ministry recognizes that both proponents seeking approvals for proposed activities and persons to whom orders are directed have an important role to play in public consultation. The Ministry encourages such parties to take the initiative in consulting with the public as well as participating in Ministry consultation activities.

Note:

Nothing within this policy is intended to abridge anyone's rights under the Freedom of Information and Protection of Individual Privacy Act or to restrict any access provided under MOE Administrative Policy 6-01 concerning the Freedom of Information Act.

POLICY BY MINISTRY ACTIVITY

1. MAJOR PROGRAM INITIATIVES

Definition:

Comprehensive new programs and major revisions to existing ones covering broad areas of policy.

Policy:

The Ministry will undertake public consultation in the development of major Ministry program initiatives in a manner designed to reach audiences across the province, to inform them about such initiatives and to solicit comments.

Public consultation in most cases will involve a range of approaches (e.g., discussion papers, information sessions, public forums), depending on the nature of the issues.

Inter-Jurisdictional Initiatives. Public consultation undertaken on initiatives carried out jointly with other jurisdictions will be covered under specific policies and agreements developed in conjunction with the parties involved.

2. LEGISLATION

Definition:

New and amended legislation.

Policy:

Opportunities for public consultation on draft legislation are currently provided through procedures by which bills are tabled and considered by the Legislature.

Normally the public is informed when a bill is tabled in the Legislature.

The Ministry, with Cabinet approval, may undertake additional steps to obtain public input on specific legislative initiatives before such bills are introduced in the Legislature.

3. REGULATIONS

Definition:

New and amended regulations.

Policy:

The Ministry generally will provide an opportunity for the public to become informed about and comment on proposed regulations.

In consulting the public on draft regulations, the Ministry will provide notification that includes a brief description of the regulation and its intent, where copies of the draft regulation and pertinent supporting documents can be obtained, and how the public can provide comments.

Once a regulation is made and filed with the Registrar of Regulations, the Ministry will make available in Ministry Head Office and Regional Public Reading Rooms and at all District Offices the final regulation and a summary of the comments received from the public. All regulations are published in the Ontario Gazette and available in public libraries throughout the province.

Opportunities will be provided in some cases for public consultation on regulations at an earlier stage through consultation undertaken by the Ministry on other activities covered under this policy (e.g., major program initiatives) from which regulations may result.

For regulations likely to be of widespread public interest, the Ministry may undertake other public consultation activities in addition to those referred to above.

The Ministry will not consult the public in most cases on regulations that either are of a minor or administrative nature or when immediate action is required. In all such cases, the Ministry will provide subsequent notification to the public through publication in the Ontario Gazette and other means where appropriate.

Regulations on Pesticide Products. New pesticide products will be reviewed and recommended to the Minister for "interim status" classification by the Ontario Pesticides Advisory Committee (OPAC) on a monthly basis.

Approved product interim classifications will be published frequently in the Ontario Gazette and pesticide client groups sent notices. Interim classifications will remain in effect for up to 18 months, during which time the public may comment. Following this period, the interim classification will either be revoked or suspended, or the product will be given further interim classification or full classification by regulation.

4. ENVIRONMENTAL STANDARDS FOR CONTAMINANTS

Definition:

Environmental standards are defined to include standards, criteria, guidelines and objectives established for specific contaminants to protect human health and the environment.

Policy:

The Ministry will provide the public with an opportunity to contribute to the development of environmental standards for contaminants through advisory committees. These committees will be responsible for reviewing scientific information, consulting with the public and considering other relevant information in formulating recommendations. The Ministry may consult directly with the public in specific cases.

The public will be notified of advisory committee recommendations and how the public's comments were considered.

Where the Ministry deems a standard is necessary to address a pressing need, the Ministry may establish an interim standard without public consultation. In such cases, the Ministry will notify the public about the interim standard and subsequently consult with the public, through advisory committees, as the final standard is developed.

5. MINISTRY POLICIES AND GUIDELINES

Definition:

Policies and guidelines by which the Ministry fulfills its mandate.

Policy:

The Ministry will provide the public access to its Manual of Environmental Policies and Guidelines and other Ministry policies and guidelines. These documents will be available at Ministry Head Office and Regional Public Reading Rooms and at all District Offices.

Policies likely to be of public interest will be adopted and implemented initially on an interim basis for a period of six months, during which time the public will be notified of such interim policies and invited to provide written comments. Copies of interim policies will be made available to anyone upon request.

6. CERTIFICATES OF APPROVAL AND PERMITS

Definition:

Certificates of Approval, including Approvals and Provisional Certificates of Approval, and Permits, including Licences, issued by the Ministry for proposed works or activities, under the authority of environmental legislation.

Consultation on Approvals under the Environmental Assessment Act will be governed by the existing process outlined within the Act.

Policy:

Information developed or received by the Ministry related to Certificate and Permit applications will be available to the public as a basis for providing comments to the Ministry, subject to legal constraints such as the confidentiality of proprietary information and to protect the reasonable expectation of privacy of individuals.

There will be selective public consultation on applications for Certificates of Approval and Permits. Criteria will be established to identify the special circumstances where a public consultation program should be carried out on such applications.

Public consultation will involve notification, and opportunities to provide written comments. Additional consultation will be undertaken when warranted. The Ministry will consider the public's comments in making decisions on these Certificate and

Permit applications, including the need for specific conditions to ensure proper operation and safeguards.

Once the Ministry issues decisions on applications for which a consultation program was carried out, all parties expressing an interest in the proposed works will be notified of the decision and how the public's input was considered.

Note:

This section of the Public Consultation Program will become effective upon the acceptance of the criteria under development.

7. ENVIRONMENTAL ASSESSMENT

Definition:

Comprehensive study of proposed undertakings involving activities, plans, programs or projects subject to the Environmental Assessment Act.

Policy:

Whenever the Ministry prepares environmental assessments or exemption requests for its own undertakings, opportunities for public consultation will be provided consistent with the guidelines it provides to other proponents.

The Ministry actively encourages proponents of proposed undertakings to consult with all interested and potentially affected "publics" in the development of the formal environmental assessment submission required under the Environmental Assessment Act; as specified in its Guidelines for Pre-submission Consultation (Policy 03-03).

Opportunities for public consultation on designation and exemption requests and other matters are provided through the Environmental Assessment Advisory Committee, at the direction of the Minister.

8. POLLUTION ABATEMENT PROGRAM

Definition:

Ministry pollution abatement program activities as specified in Policy 05-02: Pollution Abatement Program: Development, Compliance and Enforcement.

Policy:

The numerous tools available to the Ministry to encourage or to require the correction of actual and potential environmental problems, including clerical problems without direct environmental effect, are discussed at length in Policy 05-02*.

The potency of the tools themselves and their impact in a given situation varies over an extremely broad range: from a spill clean-up order issued in a life-threatening emergency; to a multi-year, multi-million dollar order requiring improvements at a major industrial facility; to an order to a cottager to fix up his septic tank.

Policy 05-02 describes appropriate public consultation and notification in principle and in practice and discusses the considerations to be made by Ministry staff in designing a public consultation/notification program appropriate both to a particular situation in need of abatement and to the community environment in which it exists.

Regardless of the above, where a program approval or a legally enforceable abatement tool (such as a control order) is utilized, notification will be given to the public by providing copies of the document to the clerks of the local municipality and upper tier municipality where the undertaking of concern is located and to the appropriate MPP. The Director will also provide such additional notification to the public as he/she considers appropriate.

* Policy 05-02 is currently under review.

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9. SITE DECOMMISSIONING AND ABANDONED SITES

Definition:

Facilities being decommissioned or abandoned which require Ministry involvement to minimize the potential for environmental and human health problems.

Policy:

Where the Ministry assumes the lead role in the decommissioning of a site or clean-up of an abandoned site, the Ministry will inform the affected public of its activities on an ongoing basis and solicit public comment on issues with significant environmental or public impact, consistent with Ministry guidelines provided to other proponents.

The Ministry actively encourages proponents of site decommissioning/abandoned site undertakings to inform and consult with the public, as specified in its Guidelines for the Decommissioning of Sites in Ontario (Policy 14-17).

10. EMERGENCY RESPONSE

Definition:

Activities undertaken by the Ministry to protect life, property and the environment during emergencies and spills, as defined in Policy 13-01: Role of the Ministry in Emergencies and Spills.

Policy:

In conjunction with its responsibilities in responding to emergencies and spills (as defined in Ministry Policy 13-01), the Ministry will ensure that the public is notified of emergencies and moderate and major spills as soon as possible. The manner and form of notification in each specific case will be determined by the magnitude and nature of the emergency or spill, the risk to the affected public and the action needed.

Where the Ministry is involved in ongoing remedial activities following an emergency or spill, the Ministry will ensure that the public is notified of these activities and public input may be solicited.

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